



**MINISTER OF EDUCATION, SCIENCE AND SPORT OF THE REPUBLIC
OF LITHUANIA**

**ORDER
ON APPROVAL OF THE DESCRIPTOR OF THE STUDY FIELD OF VETERINARY**

04 November 2020 No. V-1687
Vilnius

In accordance with Paragraph 11 of Article 53 of the Law on Higher Education and Research of the Republic of Lithuania:

1. I approve the Descriptor of the Study Field of Veterinary (enclosed).
2. I determine that the higher education institutions have to adjust their study programmes to the Descriptor of the Study Field of Veterinary approved by Clause 1 hereby until 01 October 2021.
3. I recognize Order No. V-795 of the Minister of Education and Science of the Republic of Lithuania of 23 July 2015 “On Approval of the Descriptor of the Study Field of Veterinary Medicine” as invalid.

Minister of Education, Science and Sport

Algirdas Monkevičius

APPROVED

by Order No. V-1687 of the Minister of Education,
Science and Sport of the Republic of Lithuania of 04
November 2020

DESCRIPTOR OF THE STUDY FIELD OF VETERINARY

CHAPTER I GENERAL PROVISIONS

1. The Descriptor of the Study Field of Veterinary (hereinafter – Descriptor) regulates the special requirements for the study programmes in the study field of veterinary (H01) that belongs to the group of study fields of veterinary sciences (H). The Descriptor regulates the study field of veterinary in the scope not covered by the General Requirements for the Studies approved by Order No. V-1168 of the Minister of Education and Science of the Republic of Lithuania of 30 December 2016 “On approval of the General Requirements for the Studies.”

2. The Descriptor was prepared in consideration of the recommendations of the European System of Evaluation of Veterinary Training (ESEVT), Manual of Standard Operating Procedure, and the recommendations of the Accreditation Committee of Veterinary Nurse Education (ACOVENE) and the Veterinary European Transnational Network of Nursing Education and Training (VETNNET).

3. The Descriptor’s requirements shall be applied for college studies of the first cycle and integrated university studies in the field of veterinary that may be conducted only as full-time studies.

4. The persons, who complete the college veterinary field studies, receive professional bachelor’s degree that is in conformity with the sixth level of the Lithuanian Qualifications Framework and the European Qualifications Framework for lifelong learning, and the qualification of veterinary nurse attested by the diploma of professional bachelor and diploma supplement. The persons, who complete the university veterinary studies, receive master’s degree that is in conformity with the seventh level of the Lithuanian Qualifications Framework and the European Qualifications Framework for lifelong learning, and the veterinary doctor qualification attested by the master’s diploma and diploma supplement.

5. The college studies in the field of veterinary may also be provided as studies within the study programmes classified under two study fields, upon completion of which the double degree of professional bachelor is awarded.

6. There are no special requirements established in the Descriptor for the persons, who want to be admitted to the study programmes of veterinary medicine.

7. With regard to the cycle of the study programme, type of studies and level, the purpose of the studies of the field of veterinary is the following:

7.1. purposes of college studies:

7.1.1. to prepare qualified veterinary nurses, who know the animal morphology, physiological and pathological processes, and who are able to take care, protect and nurse animals;

7.1.2. to train the abilities to receive the patients, to nurse them, to grant the first aid, to prepare the premises in the clinic and other premises of veterinary purpose, the equipment and devices available in the clinic, and the animals for procedures and tests;

7.1.3. to grant knowledge, skills and competences necessary to assist veterinary doctor properly in the course of surgical procedures and other interventions;

7.1.4. to train the skills and abilities necessary to issue the medicines prescribed by veterinary doctor to the clients, to explain, how to use and store the medicines properly and safely;

7.1.5. to train the ability to improve own professional competence so that it would satisfy the international standards of professional training;

7.2. purposes of university studies:

7.2.1. to prepare highly qualified veterinary doctors, who would understand well the Lithuanian and EU legal acts governing veterinary activities, and to grant them enough scientific knowledge and skills necessary for veterinary doctor activities;

7.2.2. to grant knowledge about animal body structure, functions, behaviour and physiological needs, and welfare of animals;

7.2.3. to develop special clinical, epidemiological and analytical skills that are needed for prevention of animal diseases, their diagnosing, treatment and nursing, including first aid, anaesthesia and painless putting to sleep, and specific knowledge about diseases that may be transmitted to humans;

7.2.4. to grant knowledge about food hygiene and technologies related to production of animal feed or food products of animal origin intended for humans and their introduction to market, including the skills and competences necessary to understand and spread good practice in this area;

7.2.5. to train the skills and abilities necessary to ensure animal raising, feeding, welfare, reproduction and veterinary hygiene;

7.2.6. to grant knowledge, skills and competences necessary for safe and responsible prescription, issuance and use of veterinary medicines to treat animals and to assure safety of food chain and environmental protection;

7.2.7. to train creative, scientific and critical thinking and ability to maintain sufficient professional competence through lifelong learning.

8. A veterinary doctor who has finished integrated veterinary studies, may pursue qualification of veterinary doctor of certain practice (speciality) by studying the residency of veterinary medicine and/or may pursue the scientist's career through the studies of PhD.

CHAPTER II CONCEPT AND SCOPE OF THE STUDY FIELD

9. The studies of veterinary field cover body structure of different domestic animals, pets, furry animals, wild, exotic and laboratory animals, birds, bees and fish, processes happening in their organisms; causes and signs of diseases, diagnosing, treatment and nursing methods, safe administration of veterinary medicines; prophylaxis of diseases, assurance of productivity and welfare; veterinary supervision of management of products of animal origin by the State, assurance of food safety, management of veterinary medicines, veterinary aids, feed and their supplements; territory's protection from communicable animal diseases; scientific researches focused on harmonious environment; animal health promotion, welfare and public health through application of "one health" model: healthy animal – safe food – safe society.

10. The studies have to be based on academic and creative freedom, unity of science and studies, ethics, and training of the harmonious personality able to ensure animal health and welfare, public health and society's confidence in veterinary doctor profession.

11. The studies have to assure efficient implementation of lifelong learning system, to apply effectively the opportunities provided by information technologies, to develop ecological self-consciousness, to promote sustainable consumption and responsible attitude to the economic development.

12. The studies include medical physics, chemistry, animal biology, zoology and cell biology, feed plant biology and toxic plants, biomedical statistics, professional language, introduction to profession and information literacy, anatomy, histology and embryology, physiology, biochemistry, general and molecular genetics, agronomy, animal hygiene, pharmacology, pharmacy and pharmacotherapy, pathology, toxicology, parasitology, microbiology, virology, immunology, epidemiology, professional ethics and communication, economics and management, animal ethology and welfare, animal nutrition, obstetrics, reproduction and reproductive disorders, clinical pathology, clinical pharmacy, surgery, anaesthesiology, clinical practice, preventive medicine, diagnostic imaging, therapy in common animal species and propaedeutics, animal production, including breeding, husbandry and economics, herd management, veterinary legislation including official controls, forensic veterinary medicine and certification, public health, control of food, feed and animal by-products, zoonoses, food hygiene and food microbiology, and food technologies. The college studies cover only the scope of the listed areas necessary to achieve the learning outcomes of the studies of veterinary nurse.

13. Higher education institutions have to foresee strategic research priority areas, where interdisciplinary fundamental and applied research activities are carried out.

14. Higher education institutions have to ensure close cooperation with external partners in research implementation, practical and teaching activities related to veterinary medicine or affiliated with veterinary sciences.

15. Graduates of veterinary studies at university level may work in the public and private sector of veterinary activities.

16. Professional work areas of veterinary nurse include theoretical and practical competences of animal care and nursing, recognition of diseases, their course and severity, preparation of diagnostic tools and veterinary doctor premises and performance of procedures, while acting as a veterinary doctor's assistant, acquired during the studies and while improving the professional activities in the course of veterinary practice.

17. The activities of veterinary nurses shall not be licensed. Veterinary nurses may perform assisting practical work of veterinary doctors' in various companies and institutions providing veterinary services in the procedure established by the State Food and Veterinary Service and under supervision of a veterinary doctor.

18. The professional work areas of veterinary doctor include theoretical and practical competences of prevention, diagnosing and treatment of animal diseases, animal nursing, food safety and control, epidemiology of communicable animal diseases, organisation of veterinary activities, research and consultations on the issues of veterinary activities, and veterinary pharmacy acquired during the studies and while improving the professional activities in the course of veterinary practice.

19. Veterinary doctors may engage in private veterinary practice only if they have a licence of veterinary practice issued by the competent public authority in accordance with the legal acts; they may engage in veterinary pharmacy practice only if they have a licence for veterinary pharmacy issued by the competent public authority.

20. Private veterinary doctors diagnose animal diseases and treat animals, except for the diseases, to which the restrictions established by the State Food and Veterinary Service are applied; they vaccinate animals in preventive procedure, consult animal keepers; issue veterinary documents in accordance with the legal acts; if they suspect the communicable animal disease, they notify the competent public authority without delay and undertake measures to stop its spread; if they identify zoonosis, epizootic animal diseases, they perform the veterinary works indicated by the competent public authority and report to that authority for the done works related to prophylaxis and treatment of communicable animal diseases; they raise professional qualification and educate society on the issues of veterinary.

21. Veterinary doctors employed in the public veterinary authorities perform the work of the competent public authority established in the legal acts, control compliance with the legal acts, spread of communicable animal diseases, assurance of animal welfare, and suitability of imported, produced, supplied and used feed and its supplements, products of animal origin, animal by-products and their derivatives, products of genetic material and veterinary medicines for use.

22. Universities preparing and implementing the integrated study programmes of veterinary field should work in compliance with the Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 and the Directive 2013/55/EU of the European Parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications, recommendations of the European Association of Establishments for Veterinary Education (EAEVE), the World Organisation for Animal Health (OIE), and the Federation of Veterinarians of Europe (FVE) governing education and professional veterinary surgeon standards; the persons preparing and implementing the college studies of the first cycle should work in compliance with the recommendations of the Accreditation Committee for Veterinary Nurse Education (ACOVENE) and the Multilateral European Network for Veterinary Nurse Training (VETNNET) governing education and professional standards of veterinary nurse.

CHAPTER III GENERAL AND SPECIAL LEARNING OUTCOMES

23. When formulating learning outcomes for the veterinary medicine field programmes, the national and international requirements for the profession of veterinary nurse or veterinary doctor should be taken into account. The content of the study programmes has to be oriented to the national and international needs and priorities established in the Lithuanian and the EU strategical documents.

24. When college studies are completed, the following learning outcomes have to be achieved:

24.1. knowledge and its application. The person:

24.1.1. is able to evaluate the limits of professional activities and responsibility, applies provisions of legal acts and professional ethics documents in professional practice, and provides professional information according to the competence;

24.1.2. is able to systemise critically and to integrate the knowledge acquired while studying to make decisions within the boundaries of professional activities;

24.1.3. is able to apply scientific principles, methods and knowledge in the veterinary practice and researches;

24.2. skills to carry out research. The person:

24.2.1. is able to perform scientific applied veterinary nursing researches, to interpret, analyse, generalise and present the results;

24.2.2. is able to apply the evidence-based practice to solve the problems within own competence boundaries;

24.3. social skills. The person:

24.3.1. is able to communicate fluently in the national and foreign language with colleagues and clients, to convey ideas orally and in writing, and to offer their solution methods;

24.3.2. is able to communicate in the electronic space, to apply computer technologies of information transmission, and to convey information to veterinary doctors and society;

24.3.3. is able to consult the animal keepers reasonably on the issues related to veterinary nursing in the practical job;

24.3.4. is able to assume responsibility for the work quality and to act in accordance with professional ethics and public spirit;

24.4. personal abilities. The person:

24.4.1. is able to think abstractly and to assess critically own professional activity, knowledge and skills;

24.4.2. is able to organise and plan rationally own time and work;

24.4.3. is able to use literature, databases and other information sources;

24.4.4. is able to study independently and to apply the acquired knowledge in practice;

24.5. special abilities. The person:

24.5.1. is able to apply protective measures that prevent spread of diseases;

24.5.2. is able to make appointments for animals, to receive the animals in the clinic, and to make sure that the animal is taken appropriate care;

24.5.3. is able to perform financial operations after the consultation or treatment, and to sell certain products;

24.5.4. is able to maintain the veterinary clinic, to prepare the environment, tools and materials in the clinic appropriately;

24.5.5. is able to get the patients ready for medical procedures and tests;

24.5.6. is able to render first aid, to evaluate the animal's clinical condition, to maintain main vital functions, and to perform primary differential diagnostics;

24.5.7. is able to provide care to the animal, to recognise and describe signs of diseases, their course and severity of the clinical signs;

24.5.8. is able to supervise the animal's healing process and to provide the necessary post-surgical care to the animal;

24.5.9. is able to convey veterinary doctor's explanations to the client, how to take care of the ill animal at home;

24.5.10. is able to take blood, urine and other samples for laboratory testing

24.5.11. is able to prepare diagnostic imaging equipment, materials and the animals for diagnostic imaging;

24.5.12. is able to assist veterinary doctor when the animal is X-rayed;

24.5.13. is able to prepare animals properly for medical procedures or tests performed by veterinary doctor;

24.5.14. is able to perform safely and effectively specific certain clinical and medical procedures assigned by the veterinary doctor;

24.5.15. is able to assist veterinary doctor during surgical procedures and to perform simple operations on veterinary doctor's assignment;

24.5.16. is able to select the appropriate measures and to take care of the animal in the post-surgical period;

24.5.17. is able to prepare the anaesthetic equipment and tools necessary for the anaesthetic procedure;

24.5.18. is able to prepare the animal for anaesthesia and to assist veterinary doctor during the anaesthesia procedure;

24.5.19. is able to issue the medicines prescribed by veterinary doctor to the clients and is able explain, how to use and store them properly and safely;

24.5.20. is able to calculate the dose prescribed by veterinary doctor and to administer or inject it to the animal;

24.5.21. is able to keep and store veterinary documentation properly, to perform rational calculations, and to manage accounting of veterinary products.

25. When the integrated studies are completed, the following learning outcomes have to be achieved:

25.1. knowledge and its application. The person:

25.1.1. understands and is able to apply knowledge about basic and applied science, research methods and legislation on which the activities of the veterinary surgeon are based, to apply the principles of effective interpersonal interaction based on humanism, veterinary legal standards and professional ethics;

25.1.2. understands and is able to apply the knowledge about animal behaviour, structure, physiological functions, biochemical and pathological processes of animals, their rearing, breeding, care and welfare;

25.1.3. knows etiology, pathogenesis, epidemiology, clinical signs, diagnostic methods, treatment of the most frequent diseases and disorders that occur in all common domestic animal species, and other diseases of international importance that pose a risk to the national and international biosecurity and trade, in order to prevent the spread of diseases;

25.1.4. understands and is able to apply the knowledge about the main medicines, their effect, pharmacodynamics, pharmacokinetics and pharmacopathy, compatibility and interaction; is able to follow legislation and guidelines regarding responsible use of medicines, including a responsible use of antimicrobials and antiparasitic drugs;

25.1.5. understands and is able to solve the veterinary-related public health problems, is able to analyse the epidemiological situation of outbreaks the epidemics and pandemics of national and cross-border diseases, food-borne diseases, new and recurring diseases, and to apply the principles of "One Health"; is able to apply the knowledge of food hygiene and food production technologies;

25.1.6. knows and is able to apply legislation related to the state and private veterinary practice, the rights of a veterinary doctor, tax requirements for veterinary practice, the structure of the state veterinary service and its functions; is able to organise, manage and implement veterinary activities, record analyse, share and provide information in effective measures ;

25.1.7. understands and is able to apply the evidence-based principles of veterinary medicine in practice;

25.2. skills to carry out research. The person:

25.2.1. is able to apply the evidence-based veterinary practical skills to ensure animal health and welfare and public health related to veterinary activities, and to develop veterinary science and practice considering social and economic factors;

25.2.2. is able to apply clinical, laboratory and scientific research methods, to analyse and understand the research problem, and to implement the 3R principles (*replacement, reduction, refinement*), to collect and process the obtained data applying statistical methods, and the use of information technologies;

25.3. social skills. The person:

25.3.1. is able to cooperate and communicate with colleagues, clients, society and competent authorities in a manner that is efficiently, responsible and in compliance with confidentiality and privacy regulations; to understand ethical and legal liability to patients, clients, colleagues, society and the environment; to disseminate the practical and scientific advances of the veterinary knowledge;

25.3.2. is able to use the professional skills to ensure the progress of veterinary science knowledge, in order to improve animal care, health and welfare and public health related to veterinary activities;

25.3.3. is able to cooperate and communicate clearly with referral and diagnostic services and to provide correct information to them;

25.3.4. is able to combine the professional skills with the principles of sustainable development of society and the concept of “green” growth, to assume responsibility for own activity and its contribution to the development of the community, region or country and the impact on the environment;

25.4. personal skills. The person:

25.4.1. is able to work professionally and honestly as a member of a multi-disciplinary team and individually, in consideration to the professional, legal and ethical responsibilities and economic context in which a veterinarian operates; demonstrates an ability of lifelong learning and a commitment to learning and professional development; is able to review and evaluate literature and presentations critically; provides professional assistance to colleagues if necessary; seeks professional help, in recognition of the personal and professional limits.

25.4.2. is able to organise and plan own activity, to cope with incomplete information, to deal with contingencies, and adapt to changes.;

25.4.3. is able to participate in self-audit and peer-group review processes in order to improve the performance efficiency and making of innovative decisions;

25.4.4. is able to work in multicultural and international environment, to consider the customs of other nations, to develop the general knowledge of science.;

25.4.5. is able to develop the socially responsible veterinary business and maintain a culture of community in society and responsibility for their activities; ;

25.5. special abilities. The person:

25.5.1. is able to analyse and apply the legal acts that establish monitoring and control of animal health, welfare, zoonoses and other reportable diseases; to apply knowledge of quality assurance systems and risk management principles, and requirements for safe use of veterinary medicines and biocides in veterinary practice;

25.5.2. is able to properly collect, analyse and publish the important information about causes of animal diseases, to carry out a complete clinical examination, to use the modern diagnosing equipment safely, to advise and prescribe effective, evidence-based treatment, to prepare accurate clinical and client records, and reports to the colleagues and society in an acceptable and comprehensive manner;

25.5.3. is able to handle and if necessary restrain the animal patients properly, safely and with respect to the animals, and instruct others helping the veterinary doctor how to perform these techniques;

25.5.4. is able to perform exhaustive clinical examination, to collect, preserve, and transport samples, to select appropriate diagnostic equipment and tools, and to carry out the necessary tests; to interpret the received test results, to understand their limits, to prepare an appropriate treatment plan and to prescribe treatment with regard to the patient’s interests and the client’s possibilities;

25.5.5. is able to perform the first aid to the animals of main species; to recognise when euthanasia is appropriate and to perform it legally, using appropriate methods, showing respect to the animal and

sensitivity to its owner or other persons; to inform the owner about appropriate destruction and other safe disposal possibilities of the carcase;

25.5.6. is able to assess the animal health, welfare and nutrition condition, to advise the animal breeders on the principles of keeping, caring, raising and feeding of an animal or groups of animals; to observe the veterinary certification principles;

25.5.7. is able to recognise the signs of zoonoses and reportable diseases, as well as signs of violence against animals, to undertake appropriate means, including notification of competent authorities; to apply the principles of biosecurity in order to minimize a risk of contamination of the equipment, clothing, premises, and environment until the disease is eliminated;

25.5.8. is able to prescribe the medicines for the animals responsibly, in accordance with the valid legal acts, to ensure safe storage and disposal of veterinary pharmaceutical waster in accordance with the valid Lithuanian and the European Union legal acts and instructions, to register and inform about the noticed adverse impact of medicinal product;

25.5.9. is able to apply the principles of sterilization the surgical equipment and instruments; safely perform sedation, general and regional anaesthesia using appropriate drugs; perform aseptic surgery correctly; assess and manage pain;

25.5.10. is able to perform pathological anatomic and microscopical examinations of carcasses, to register the encountered changes, to take, store and transport samples and to assess their results;

25.5.11. is able to perform ante-mortem and post-mortem inspection of animals destined for the food-chain, including paying attention to welfare aspects; to correctly identify risk factors affecting the quality and safety of products of the animal origin, with consideration to animal's nutrition and used medicinal products; to exclude those animals whose condition means their products are unsuitable for the food-chain; to assess the carcase's quality, safety and suitability for food;

25.5.12. is able to advise on, and implement, preventative and eradication programmes appropriate to animal species and in compliance with accepted legal acts on animal health, welfare, public health and environmental protection.

CHAPTER IV TEACHING, LEARNING AND ASSESSMENT

26. The strategy of teaching, learning / studying and assessment has to reflect completely the character of studies of veterinary medicine and to promote active participation of the students in the study process.

27. The teaching has to be based on conveyance of knowledge and training of abilities enabling the student to become responsible for his/her own professional competence. The teaching has to be based on the fundamental knowledge of veterinary medicine and the latest achievements in the field of science. The teaching has to expand the understanding of the fundamentals of the study programme and to safeguard the opportunity for the students to improve the reflective skills.

28. The teaching and learning methods have to be based on lifelong learning concept and to induce continuous professional development.

29. The teaching and learning methods have to be effective and versatile; the tasks for independent work have to be in compliance with learning outcomes of the study programme, to motivate the students to use student's and teacher's time and material resources (libraries, laboratories, equipment, etc.) rationally.

30. The gnoseological, habituating, exploratory, control, self-control and methods inducing independent studies are recommended for teaching and learning:

30.1. the gnoseological methods are directed at the development of cognitive skills and conveyance of knowledge (conveyance of cognition and knowledge through academic practice), perception of knowledge (narrative, conversation, illustration, demonstration, observation, learning through cooperation, situation modelling). These methods may be implemented by choosing the form of sessions;

30.2. the habituating methods are directed to development of practical abilities (including transferrable) (discussion, researches, individual or group works (projects), imitation). These methods may be implemented through workshops and seminars in small groups;

30.3. it is recommended to apply the teaching methods related to clinical practice, when the information is matched with the task at once, as the main methods in the studies of clinical modules. The workshops have to be included into the study process, when simulations, tissue and organ preparations, views of visual teaching material, patient tutoring and analysis of clinical cases in the animal clinics of higher education institutions, animal clinics of stakeholders, animal farms, or slaughterhouses are used;

30.4. the number and diversity of healthy and ill animals, materials of animal origin, and animal by-products have to be sufficient and appropriate for safe practical teaching;

30.5. the methods stimulating independent studies are reflexion, case analysis, problem solving, learning by doing, learning by teaching others, learning from experience, individual search for problem solution, control, self-control and other methods;

30.6. the exploratory methods of exploratory character (e.g., search for information, reflexion, information analysis and synthesis, performance analysis, application of particular research method, data interpretation, etc.) have to be used as a ground for independent studies;

30.7. the control and self-control methods guarantee a feedback on professional preparation to the teacher and students. These methods enable the student to perform more thorough applied researches described in the course and final works.

31. The teaching and learning methods may be active (seminars of problem analysis and solution, teaching and work practical training, preparation of report or presentation, discussion, projects, research work, and other methods oriented to active, independent work of students or work performed by students under the teacher's supervision), passive (lectures, workshops, seminars and other methods attributed to traditional concept of studies) and interactive (electronic teaching courses of the subject, conferences in virtual environment, online pages of teaching material, products of video lectures, etc.). The same methods may be applied in different cycles of studies; however, the content and complexity of tasks, expression of student's independence and aimed outcome must differ.

32. The studies have to be linked to scientific researches and its dissemination in practice. This may be achieved with the help of such forms as scientific researches of students, scientific-practical seminars, application of scientific researches performed by teachers to explain theoretical subjects, etc. The students are encouraged from the very beginning of their studies to take part in the scientific activities and to improve their knowledge, social, personal and special abilities consistently and purposefully.

33. The learning outcomes of the subject (module) shall be assessed according to ten-point grading system. The institution of higher education has to determine the organisation principles of students' achievements assessment, its implementation procedure and quality management assessment during the course of studies. The evaluation system and procedure of the learning outcomes have to be based on the following principles: validity (assessment is related to expected learning outcomes); reliability (the received assessment information and results have to be objective and cannot change when the assessing person is changed); clarity (the assessment system has to be informative and comprehensible to evaluators and persons who are evaluated); usefulness (the assessment has to contribute to implementation of the goals of the study programme and achievement of the learning outcomes); impartiality (the same assessment methods have to be applied for all the persons being assessed); and publicity (the assessment is based on public criteria, while the assessment results and their explanation are accessible to all the assessed persons).

34. The assessment system may include various assessment methods (diagnostic, formative, summative, etc.) that allow the students to demonstrate their specific and general abilities, understanding and knowledge of the veterinary study field. The assessment strategy of the students' achievements shall be developed together with the subject's descriptor by the teachers preparing the curriculum of the subject/module:

34.1. the diagnostic assessment is applied in order to check the minimal necessary readiness of the student for sessions, to determine the initial level of the student's knowledge and skills for assessment of later progress, and to help the teachers to choose the teaching methods and/or to adjust the content of studies by creating conditions for the students to achieve the aimed learning outcomes as efficiently as possible;

34.2. the formative assessment is applied in order to assess critically and to correct learning of the students in the part of the study programme, where practical and social skills are important (problem solving, practical training, etc.). In order to evaluate general competences, the formative assessment is usually performed through feedback from various sources (teacher – group – person's self-assessment, and other methods);

34.3. the summative assessment is applied in order to assure active work of the students in the course of entire semester and to evaluate the learning outcomes of certain subject/module. The cumulative grade is a part of summative assessment.

35. Possible assessment modes (forms): written or oral examination, colloquium, assessment of laboratory or practical works, test, survey, testing, case analysis, analysis of disease history, project-based tasks, presentations, essay, reflexions, peer reviews, reports, course paper, report on practical training and its defence, qualification exam, final work and its defence, etc.

36. The students may account in alternative modes in case they have disability or special needs, because of which they cannot be examined in the usual procedure. The alternative assessment method shall be selected by the teacher individually and it has to enable evaluation of the achieved learning outcomes.

37. Before the teacher starts teaching the subject, the teacher has to inform the students about assessment procedure of learning outcomes, state the thorough curriculum, goals of the subject, expected learning outcomes, particular assessment strategy of the taught subject the learning outcomes (influence of interim tests on final grade), progress possibilities (in case of what outcomes, the subject has to be repeated or the exam may be repeated, etc.), assessment procedure and criteria.

38. A very important component of learning outcomes assessment is the provision of feedback to the students about their achievements (outcomes) and substantiation of evaluation, as well as students' feedback to the teacher in order to improve and develop the effectiveness of the study process and to improve the teaching quality. The students have to receive the feedback about their works on set time scale. The evaluation of learning outcomes has to be supported by constructive comments based on clear assessment criteria.

39. If the student disagrees with the assessment of the learning outcomes and/or its explanation and/or assessment procedures, s/he has the right to appeal. The higher education institution must have clear rules on filing and consideration of appeals and complaints.

CHAPTER V

REQUIREMENTS FOR IMPLEMENTATION OF STUDY PROGRAMMES

40. General requirements for academic staff in the study field of veterinary:

40.1. the foundation of studies is based on competent and qualified teachers, who create general academic environment and show an example to the students. The factors, according to which general competence of the teachers is assessed: experience, research activities, ability to communicate fluently in at least one foreign language, interest and activeness in creating effective and advanced teaching methods, recognition in professional, scientific and other communities, participation in professional and educational training programmes, professional insight;

40.2. the teachers have to show interest in scientific novelties, participate in the scientific activities, and be able to advice the students on curricula and career, and to know and understand the criteria regulating quality of studies used to accredit the study programmes;

40.3. the certification of teachers shall be conducted in the procedure established by the higher education institution. The research, pedagogical and practical activities of teachers are assessed. The supervisors of practical training shall have at least the master's degree in veterinary field or an equivalent veterinary doctor's qualification and at least 3 years of practical work experience. It is preferred for the teachers to have specialised in a specific field of veterinary medicine;

40.4. at least 60 percent of the teachers of integrated study programme of veterinary medicine must have PhD, where the field of research activities of at least 50 percent of the teachers has to correspond to the subjects they teach. At least 20 percent of the volume of the subjects in the study field has to be taught by teachers, who have a title of professor;

40.5. half of the teachers of college studies must have the practical work experience in the area of taught subject/module of at least 3 years. At least 10 percent of the subjects have to be taught by scientists. The practical sessions (practical works and workshops) of the students in colleges have to be supervised by the person, who has at least the bachelor's or professional bachelor's degree in the field of the taught subject;

40.6. the professional and educational competence of teachers has to be improved in the procedure established by the higher education institution.

41. Implementation of the studies:

41.1. the study programme is implemented through subjects (modules). The studies of each subject (module) end in exam or evaluation of the independent work (project) of the student according to the assessment procedure of learning outcomes approved and published by the higher education institution;

41.2. one or several subjects of the programme may be taught as a part of the module or integrated with other subjects;

41.3. the content of theoretical and practical teaching and distribution among various groups of subjects has to be balanced and coordinated by the decision of the higher education institution in such a way that the acquired knowledge, experience and abilities would be acquired that would allow the student to achieve the aimed outcomes;

41.4. the higher education institution has to establish volumes of contact work and independent work of students for each part of college or university studies with regard to specific features of the part in question;

41.5. the information about studies (timetables, curricula, descriptors of subjects (modules), assessment strategy, material of studies, etc.) has to be provided in the information system of the higher education institution and it has to be easily accessible to the students.

42. Requirements for practical training:

42.1. practical training is an integral and compulsory part of each study programme. It links veterinary skills and knowledge acquired during the course of the studies with practical experience, training the ability to work in real environment, to work in team, and to assess critically the limits of self-competence;

42.2. practical training is attributed to the subjects (modules) in the study field. The total volume of practical training has to be at least 20 study credits in the integrated study programme and at least 29 study credits in the college study programme. The practical training may be taught as a separate subject or module or as a part of certain subject or module;

42.3. the reflective character of practical training tasks is recommended (diary writing, registration journal of patients (animals), reflexion, analytical analysis of practical experience in report, etc.);

42.4. the supervisors of practical training have to be involved in the process of organisation and improvement of content of practical tasks and practical training and assessment of the trainee;

42.5. the higher education institution suggests a list of possible places for the practical training to the students. The student may find a place for practical training himself / herself, yet its compliance with the established criteria shall be evaluated by the higher education school. The practical training of veterinary medicine may be organised in animal clinics of higher education institution, private veterinary clinics, veterinary laboratories, veterinary pharmaceutical companies, State Food and Veterinary Service and its territorial units, National Assessment Institute of Food and Veterinary Risk, zoos, stock farms, slaughterhouses and other institutions engaged in veterinary doctor activities. When the institution for practical training is chosen, a trilateral agreement between the student, the higher education institution and the institution of practical training is made;

42.6. when the students account for practical training, they shall submit a report on the performed practical training in the form established by the higher education institution, where the tasks performed during the practical training and the received results have to be presented and analysed (in case of clinical practical training, the completed registration journal of the patients has to be also submitted).

43. Requirements for completion of the studies:

43.1. the college study programme ends in preparation of final professional bachelor's work (project), evaluation of its defence and final qualification exam:

43.1.1. at least 9 study credits are awarded for the defence of professional bachelor's work (project) and final exam. When the studies are interdisciplinary, one joint graduation work (project) that integrates the learning outcomes of different fields;

43.1.2. the final professional bachelor's work (project) has to be based on independent researches, application of knowledge, and to reveal the abilities conforming the programme's goals. The final professional bachelor's work (project) serves to manifest the student's knowledge and level of understanding, ability to analyse the chosen topic, veterinary works of other persons, to learn and perform veterinary research works independently, to describe them, and to formulate clear and reasoned research conclusions and recommendations;

43.2. the programme of integrated studies ends in evaluation of the graduate's competence by preparation of master thesis (project), evaluation of its defence and final qualification exam:

43.2.1. at least 15 study credits are awarded for the defence of master's work (project) and final exam.;

43.2.2. the master thesis (project) has to be based on independent scientific and applied researches, application of knowledge, and to reveal the abilities conforming to the goals of the program. The final work serves to manifest the student's knowledge and level of understanding, ability to analyse the chosen topic, to assess other scientific works in the field of veterinary medicine, to describe own research work, to present the interpretation of research results, to formulate clear and reasoned research conclusions, and to submit practical recommendations with regard to the received research results;

43.3. the assessment commissions of master's or professional bachelor's works has to be formed by the competent specialists in the area of veterinary studies – teachers, scientists, professional practitioner's, and representatives of stakeholders;

43.4. the tasks of master's or professional bachelor's final qualification exams have to be in compliance with the learning outcomes provided in the programme and they have to be assessed by the assessment commission of final qualification exams formed by the competent specialists in the area of veterinary studies – teachers, scientists, and professional practitioner's;

43.5. the procedures of the final works and qualification exams shall be determined in separate documents prepared by the higher education institution conducting the study programme.

44. Requirements for material, information and methodical resources:

44.1. the number of places in lecture halls has to be sufficient for the present number of students. The lecture halls have to satisfy the requirements of hygiene and work safety and they must have modern audio and video equipment and demonstration tools;

44.2. the laboratory equipment and devices necessary for specialised laboratories, and laboratory tools have to satisfy the requirements of the study programme. The Laboratories must have good-quality and appropriate instruments and devices;

44.3. the college must have animal clinics and external practical training bases (animal farms), with which the college should have made cooperation contracts;

44.4. the university must have clinics for small and large animals, practical training and testing centre (farm) and external practical training bases (animal farms), with which the university should have made cooperation contracts;

44.5. the clinics, teaching classes and laboratories using the biological substance have to satisfy the requirements of biological safety and security, to have modern equipment and the necessary measures;

44.6. the number of computers in the computer rooms and training laboratories has to satisfy the needs of the study programme. The computers must have text and data processing software and access to Internet;

44.7. the scientific literature in the field of veterinary sciences necessary to implement the study programme, as well as textbooks, books, methodical publications, journals and other literature in Lithuanian and foreign language have to be available in the libraries. The libraries must have computers with the Internet access to international databases.
