

## Catalogue of Educational Programs at the Faculty of Veterinary Medicine

### Integrated Master's Educational Program of Veterinary

*Recent changes made to the program  
are discussed at the session of the faculty council:*

*Protocol No. 35-23, 18.08.2023*

*Approved by the decision of the Governing Board:*

*Resolution No. 30, 14.09.2023*

**Higher education level:** II level of higher academic education (integrated master's degree)

**Instruction language:** Georgian

**Type of educational program:** Academic

**Detailed field name and code:** 0841 Veterinary

**Awarded qualification:** Master of Veterinary Medicine (MVM) (Integrated Master)

**Duration of studying:** 10 semesters

**Educational program volume:** 300 credits

**Head(s) of the educational program:**

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### Relevance of Program

Georgia is an agrarian country, one of the priority directions of the national economy is agricultural production, specifically, the production of livestock products, the increase of livestock productivity, ensuring the supply of healthy livestock products to the population.

The development of this vital field of cattle-breeding is impossible without veterinary services. Veterinary activities are aimed at ensuring the health and well-being of animals, increasing their productivity, producing harmless animal products, preventing human zoonotic diseases, and protecting the ecosystem from pollution. In cases of disease outbreaks in livestock farms, there is a deterioration of the animal's health condition, a decrease in their productivity (decrease in milk milking, weight

gaining, etc.), during the exacerbation of the disease, forced slaughter and death of animals, which causes economic damage to farms, therefore, hinders the sustainable development of the livestock sector and worsens the economy of the country, which is indicated by the following statistical data: during the years 2017-2021, on average, 55 thousand cattle, 77 thousand pigs, 3 813 thousand birds die in the country every year.

In our country, important steps were taken to regulate the field of veterinary medicine, by the help of international organizations and experts, a national animal health program was developed, on the basis of which strategic plans of measures against contagious diseases were subsequently prepared. The 2015-2027 plan for legislative rapprochement with the European Union in the field of veterinary medicine involves the gradual approximation of Georgian legislation to the normative acts of the European Union, which ensures the provision of veterinary services at the level of modern requirements and the protection of animal health in order to ensure the achievement of reliability against epizootological and zoonotic diseases in the country.

Today's veterinary medicine is facing new challenges, globalization, increased trade relations between countries and continents, global warming and other factors have significantly changed the epidemiological (epizootic) situation of the world. Diseases (African swine fever, nodular dermatitis, infectious catarrhal fever of sheep, rinderpest, etc.), which used to be a problem of individual regions and continents, have gone beyond their historical boundaries and are taking over new territories. Consequently, the importance of veterinary medicine in protecting human health and well-being becomes even more crucial. Moreover, more than 65% of human diseases are of animal origin.

Raising the level of animal health protection is closely related to avoiding the risk of human infection with zoonotic diseases, which leads to epidemiological safety in the country, and as a result, the growth of trade and export potentials, attracting foreign investors and investing in sustainable development projects, solving many social problems by improving the economic situation, and implementation of the set goals gains even more weight after the drawing up the agreement between the European Union and Georgia, which determines the future plans of the country on the way to join the European family. The further development and prospects of relations between Georgia and the EU countries, the requirements of strict international trade standards for the quality of products, including livestock products, require strict control. Due to the importance of solving all these tasks, the present-day makes strict demands on veterinary specialists.

The new challenges facing veterinary medicine can be solved only by specialists trained in the highest veterinary educational program in accordance with international standards, knowledgeable in modern methodologies, who have high qualifications and such competencies that will enable them to realize their potential in public or professional activities and advance their careers.

The analysis of the study of the requirements of the Georgian labor market for veterinary specialists reveals that the livestock sector, state and private veterinary structures suffer from an acute shortage of veterinary specialists. The average age of those working in the field ranges from 55-60 years, and 18% are over the retirement age, and in the next 7-10 years, due to the aging of veterinarians, a sharp decrease in their number is expected. Currently, veterinarians are trained in Georgia in two higher educational institutions (Agrarian University and Samtskhe-Javakheti State University), which naturally cannot ensure the filling of the shortage of veterinary personnel.

The need to solve the important tasks mentioned above and meet the increased requirements for veterinary specialists determines the urgency of implementing the veterinary educational program.

The European University's integrated veterinary master's education program takes into account the achievements of the field and the demands of the labor market. In addition, the university has adequate financial, material and human resources, which can create such learning conditions for students that ensure the training of highly qualified veterinary specialists.

#### Prerequisites for admission to the program

A person with a document confirming complete general education or equivalent, who will be entitled to study at a European university based on the ranking of the coefficients of points obtained in the unified national exams.

To enroll in the program, the entrant must pass the following subjects:

a) Georgian language and literature, Foreign language(English language/Russian language/French language/German language). The entrant must overcome the minimum competence limit established by the legislation.

b) Mathematics /History/ Biology / Chemistry (the entrant must pass the minimum competence limit established by legislation). The number of seats for each subject (mathematics/history/biology/chemistry) should not be less than 10% of the seats announced on the program. The exact percentage distribution will be decided by the program head before the announcement of seats.

**The person will get the right to study on the program without passing the unified national exams as follows:**

On the basis of Order No. 224/N “on the approval of the procedure for submission and review of documents by students/ Entrants/candidates for master's degrees/students with the right to study without passing unified national exams/universal master's degree exams at a higher educational institution” of the Minister of Education and Science of Georgia dated December 29, 2011 ,they have the right to enroll in the university without passing the unified national exams. The mentioned persons

are obliged to confirm the B2 level of the Georgian language in accordance with the "Rule for determining the language competence of a European University student".

**The following will also be admitted to the program:**

Students enrolled by the rule of mobility in accordance with Order No. 10/N "On approval of the procedure and fees for transferring from a higher educational institution to another higher educational institution" of the Minister of Education and Science of Georgia dated February 4, 2010.

### Goals of Program

The integrated master's education program of Veterinary Medicine is in full compliance with the mission of the European University, which includes - "training of highly qualified staff, developing the student into a competitive specialist".

The purpose of the educational program is for the student to:

1. To teach different types of animal diseases, to develop the skills of fighting them independently and conducting prevention measures, taking into account local and international standards and experience;
2. To study the issues of increasing animal productivity and food safety. to develop the skills of food veterinary control;
3. To develop the skills of solving problems and scientific research in the field of Veterinary Medicine;
4. To form a high social responsibility to protect the ecosystem.

### Learning Outcomes

After completing the veterinary educational program, the graduate will develop the following competencies:

1. Describes the genetic, biochemical, morpho-physiological, behavioral and other biological characteristics of animals and the mechanisms of regulation of vital processes;
2. Describes the typical pathological processes of the animal, their etiology, pathogenesis, forms and specificity of manifestations, compensatory mechanisms.
3. Determines the physical, instrumental and laboratory methods of animal fixation, clinical examination, symptoms of diseases of various systems, diagnosis and rules for conducting practical manipulations;

4. Describes groups of therapeutic and prophylactic drugs, mechanisms of their effectiveness, methods of use and prescription. Discusses the role of drugs in treating addiction and polluting the ecosphere;
5. Determines the etiology, pathogenesis, diagnosis, treatment and prevention of infectious, parasitic, internal, surgical, reproductive organs, immunopathologies and other diseases, first aid and epidemic elimination measures; describes the issues of veterinary institutional arrangements in the country; Explains the impact of disease risk factors on animal and human health.
6. Describes animal breeds, their maintenance systems, nutrition, reproductive biotechnology, stress protection and welfare measures.
7. Collects the anamnesis of the patient, performs fixation, clinical examination of the animal by diagnostic methods, analyzes the results and diagnoses infectious, parasitic, internal, surgical, immunopathological, reproductive organs and other diseases. Prepares simple medicinal forms, conducts treatment, preventive and first aid measures.
8. Performs an autopsy of an animal carcass, takes pathological material, sends it to the laboratory, determines the type of organ pathology. Conducts forensic veterinary examination.
9. Determines the hygienic requirements and dangers of food production/processing/distribution, carries out food safety control, pre-slaughter and post-slaughter veterinary inspection of animals;
10. Independently manages the learning/working environment, conducts researches, presents research results in Georgian and English languages to the professional and academic community in compliance with ethical standards.
11. Follows the requirements of veterinary legislation, international regulations for the protection of experimental animals, bioethical standards and personal hygiene during individual and group work.

### Volume and Structure of Program

The educational program is made on the basis of the European Credit Transfer System (ECTS), is student-oriented and is based on the student's academic load, which is required to achieve the goals and results of the educational program.

1 credit includes 25 astronomical hours. A credit in a unit of time (hours) reflects the volume of work required by a student to master the relevant study course of the program and achieve the learning outcomes. Credit includes contact and independent work hours.

The duration of the program is 5 academic years, i.e. 10 semesters and includes 300 credits (7500 hours in total). During the semester, the student must complete 30 credits (30 credits - 750 hours), and during the academic year - 60 credits, however, depending on the student's individual workload, the number of credits per semester may be less or more than 30, while the number of credits during the academic year may be less than 60 or more but not more than 75 credits.

The educational program is aimed at obtaining the Master of Veterinary Medicine qualification and its structure is represented by the main study area (compulsory study courses of the main study area, mandatory "practice" component of the main study area, scientific-research component and optional study courses of the main study area) and general study courses and a free component . The educational program includes issues recommended by the field characteristics of the veterinarian in basic sciences and the components of the main field of study (teaching of basic sectoral, clinical, animal breeding, food hygiene and safety sciences), and in the optional part of the field of basic study, courses related to the field of veterinary medicine, which will contribute to the fulfillment of professional duties and expand competences in the field of veterinary medicine.

Mandatory component of the main field of study "Practice" is conducted in organizations with appropriate profile and resources, which will develop students' practical activity skills.

The program includes general mandatory training courses and free optional training courses that do not belong to the components of the main field of study, but are aimed at the formation and development of general knowledge. The training courses in the program are arranged according to a certain principle, from simple to complex, from general to specialized, with the observance of the relevant prerequisites, which allows the student to pass the mandatory and optional subjects listed in it in an orderly system and obtain quality knowledge. At the same time, the student has the opportunity to choose the desired and interesting study course within the framework of the free credit and thereby contribute to his own intellectual development and the development of competencies corresponding to the chosen course. The educational program includes both theoretical and practical aspects.

Distribution of study program credits:

- General/free component - 75 credits, including:

General/free component compulsory training courses - 65 credits;

Optional training courses of the free component - 10 credits.

- Mandatory training courses of the main field of study - 178 credits;
- Mandatory component of the main field of study "Practice" - 24 credits;
- Scientific-research component of the main field of study - 14 credits;
- Optional training courses of the main field of study - 9 credits.

## Assessment System of Student's Knowledge

The student's knowledge assessment system used within the educational program is in accordance with the "Rules for calculating credits for higher education programs" approved by Order No. 3 of the Minister of Education and Science of Georgia on January 5, 2007.

The level of achievement of the learning outcome is assessed by assessment forms, mid-term assessment and final assessment, the sum of which represents the final assessment. The maximum final grade of the training course is 100 points.

The evaluation system provides for:

**a) Five types of positive assessment:**

A.A) (A) Excellent - 91-100 points;

A.б) (B) Very good – 81-90 points;

A.C) (C) Good – 71-80 points;

A. D) (D) Satisfactory - 61-70 points;

A.E) (E) Sufficient – 51-60 points.

**b) Two types of negative assessment:**

B.A) (FX) Failed - 41-50 points, which means that the student needs more work to pass and is allowed to take the additional exam once with independent work;

b.b) (F) Failed – 40 points and less, which means that the work done by the student is not enough and he has to study the course/subject again.

In case of receiving a negative evaluation (FX) in the component of the educational program, the student has the right to take an additional exam. The student gets the right to take the additional exam even if he/she has scored 51 points or more in the final assessment, but has not passed the minimum competence limit defined for the final exam. An additional exam is scheduled at least 5 days after the announcement of the final exam results.

The number of points obtained in the final assessment is not added to the grade received by the student in the additional exam. The grade obtained on the additional exam is the final grade and is reflected in the final grade of the educational program component.

The mid-term assessment is divided into components. A mandatory component of mid-term assessment is the mid-term exam. Mid-term assessment refers to the total assessment of students' work process during work in the working group, mid-term exam and student's independent work, and final assessment - assessment of the final exam. The methods of intermediate and final evaluations and their

share are determined by the staff implementing the training course within the framework of the relevant syllabus. The syllabus also explains the evaluation criteria for each component.

A student will be admitted to the final exam if the minimum limit of the mid-term assessment is exceeded. The final exam will be considered passed if the minimum limit for the final exam is exceeded.

The minimum competence limit for the intermediate assessment is 50%, and for the final assessment - 50%+1.

The credit will be considered as mastered whether the sum of the points obtained based on the minimum limit established for the mid-term assessment and the minimum limit established in the final exam is obtained by summing up 51 points or more.

The staff implementing the training course, taking into account the specifics of the training course, is authorized to define different (higher) minimum competency limits for mid-term and final assessments, in accordance with the requirements established by the current legislation of Georgia.

The staff implementing the training course, taking into account the goals, learning outcomes and specifics of the training course, is also authorized to determine the minimum competence limit in the evaluation method/methods. If there is a minimum competency limit in the assessment method/methods, credit will be granted by passing the minimum competency limit in each assessment method, passing the minimum competency limit in each assessment component (mid-term and final assessment) and obtaining at least 51 points as a result of summing the points obtained in the mid-term and final assessments in case.

### Field of Employment

The Master of Veterinary Medicine has the right to work in state and private services under the conditions provided for by the legislation of Georgia:

#### **Veterinary Medicine:**

- Cattle breeding and poultry farms, beekeeping and fishing farms, disease prevention, diagnosis and treatment;
- Veterinary clinics and laboratories: prevention, diagnosis and treatment of animal diseases (outpatient and inpatient), conducting laboratory tests;
- Veterinary pharmacies, pharmaceutical enterprises: production, testing, control and dispensing of drugs, consultation of animal owners;
- Pet stores, zoos, vivariums, aquariums, terrariums, hippodromes, animal shelters: consultation of animal owners/service personnel, animal supervision, diagnosis, treatment and prevention of animal diseases;



- cosmetic cabinets; animal care, cosmetic interventions;
- Slaughterhouses: animal pre-slaughter and post-slaughter veterinary inspection; Checking the system of threat analysis and critical control points and others;
- Educational and scientific-research institutions: educational-practical, scientific-research activity, profile activity;

Relevant state agencies: development and implementation of veterinary control mechanisms within the country and at the border in order to ensure the health and welfare of animals.

### **Food Safety**

- Agricultural markets, food business partners: inspection of animal products, etc.

### **Environmental Protection:**

- Protected areas: monitoring of animal species, monitoring of epidemic/epizootic situations, their prevention and others.