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# PhD Educational Program

### **Program Title**

მეცხოველეობა

Animal Science

#### Faculty

აგრარული მეცნიერების და ბიოსისტემების ინჟინერინგი

Faculty of Agricultural Science and Biosystems Engineering

### Program Head/Heads

Professor Vasil GHLIGHVASHVILI

## Qualification to be Awarded and the Extent of the Program in terms of Credits

Doctor of Agricultural Sciences

is awarded if the educational component of the educational program (60 credits) and the research component are completed. The duration of the program is at least 3 years.

### Language of Teaching

Georgian

### Prerequisite for Admission to the Program

Diploma of Master's degree or equivalent academic degree. Scientific publications, participation in scientific conferences, and other documents and materials related to educational/research activities (certificates, honorary certificate, patents, etc.) are taken into account.

Those wishing to enroll in the program must present an appropriate international certificate proving English language proficiency of at least B2 level. In the absence of the above certificate, the applicant shall take the English language exam at the GTU examination center. A PhD candidate graduated from an English-language program (Bachelor's and/or Master's program) is not required to take the exam and present the certificate.

Those wishing to enroll in the program must also submit a research project that outlines the applicant's research goal and direction. The PhD candidate is interviewed by an interim faculty commission.

The procedure for admission to the doctoral program and the conditions of admission, as well as samples of foreign language examinations are posted on the University's website.

It is possible to enroll in a program on the basis of mobility twice a year within the deadlines set by the Ministry of Education, Science, Culture and Sport of Georgia, following the mandatory procedures and rules set by the University.

Admission to the program or transfer from a recognized higher education institution in a foreign country is carried out in accordance with the rules defined by the legislation of Georgia.

External mobility. Enrollment in an educational program is also possible on the basis of mobility, in accordance with the order of the Minister of Education and Science of Georgia dated February 2, 2010 No. 10/N "Procedure for Transferring from a Higher Educational Institution to Another Higher Educational Institution".

Internal mobility. The applicants shall also be admitted to the educational program on the basis of internal mobility. The terms and procedure of internal mobility are determined by the legal act of the University and the information is posted on the University website.

The educational program is public and available to all interested parties. The website of Georgian Technical University both in the news field and on the page of the Training Department contains information about the processes and procedures of enrollment in educational programs. Educational programs are posted on the webpage of the Faculty, where anyone can learn about the necessary conditions for admission to the program, as well as its content.

Contact information is indicated on the website of the Training Department and Quality Assurance Service of the University, as well as on the website of the Faculty. All interested persons have the opportunity to get information and advice on any issue, both by phone and by e-mail.

### Program Description

The program is compiled using the ECTS system. 1 credit is equal to 25 hours, including contact and independent work hours. The distribution of credits is presented in the program curriculum.

The program lasts at least 3 years (6 semesters). The tasks of the educational component are sectoral and methodological preparation of doctoral students to implement the goals of the educational program of doctoral studies. The educational component helps the doctoral student in the successful preparation of the thesis, in further pedagogical and scientific activity. The educational component of the PhD program consists of 60 credits, as detailed in the program's subject loading.

Before the beginning of the semester, the Rector of the University issues an order on the progress of the academic process, which will be posted on the website.

The second and subsequent semesters provide for the completion of the research components, which include: research project/prospectus, colloquium-1, colloquium-2, colloquium-3, preliminary defense, thesis completion and defense.

The research component is assessed once, at the thesis defense stage, with a final grade.

Detailed information about the evaluation of the research component is presented in the "Regulations of Doctoral Studies at Georgian Technical University" and "Educational and Research Component of Doctoral Programs and the Rights of their Evaluation", which are available on the website of GTU.

### Program Objective

The objective of the Doctoral Program in Animal Science is to prepare a highly qualified specialist with knowledge of modern technologies and a researcher able to perform pedagogical work in accordance with international standards in this field.

Graduates will contribute to solving problems in the field of animal husbandry and use all those resources that will allow the development of the mentioned branch, improve effective management of production, establish the branch structure of livestock breeding in the agricultural sphere. They will improve traditional approaches, with a new vision to promote the breeding of animals and birds, the creation of new food products and the use of innovative methods that will contribute to the sustainable development of regions and rural areas (villages).

## Learning Outcomes/Competences (general and professional)

- On the basis of acquired knowledge determines evaluation, feeding, selection of animals by constitution and exterior, using innovative methods in breeding;
- Analyzes the latest breeding advances in herd reproduction for livestock enterprises in various lines of enterprises;
- Understands the energy potential of food products, their individual ingredients and their impact on the process of product creation, prospects for improving quality and productivity;
- Knows the innovative methodology of theoretical research and experiments and the basic principles of modern processing of scientific papers/dissertations; analyzes the material obtained on the basis of special literature and research, develops new methods of research and analysis;
- Plans to formulate his/her own position on the basis of understanding and reassessment of available knowledge, to make a public speech, to present and discuss a "project proposal", scientific work in accordance with modern requirements; participates in a discussion, by following the principles and rules of verbal and non-verbal communication; also, participates in a thematic polemic with the international scientific community in a foreign language.
- Independently plans, implements and monitors the use of innovative research on the quality of origin and progeny of animals and birds;
- Through practical activities and professional communication establishes new values in his/her field of interest and takes care of their innovative development;
- Plans ways to establish standards of professional behavior and ethics in critical, unpredictable situations and develops innovative methods.
- Delivers instruction by integrating the latest teaching-learning methods and their strategies, transferring knowledge based on the latest developments and creating reinforcement-oriented tasks, ensuring inclusion/participation of learners in the process of analyzing problems and using appropriate methods and criteria to evaluate them.

### Methods of Achieving Learning Outcomes (teaching-learning)

 $\square Lecture \square Seminar (group work) \square Practical \square Laboratory$ 

Scientific and thematic seminar Independent work Consultation Research component Structure of the thesis Thesis defense

In the learning process, depending on the specifics of a particular study course program, the following activities of the teaching-learning methods are used, which are outlined in the relevant study course programs (syllabi):

discussion/debate, induction, deduction, analysis, synthesis, oral or verbal work, writing work, practical methods, explanation method, action-oriented learning

#### Student's Knowledge Assessment System

Assessment is done on a 100-point system. Assessment of the learning component:

Positive grades are:

- (A)-Excellent 91-100 points;
- (B)-Very Good 81-90 points;
- (C)-Good 71-80 points;
- (D)-Satisfactory 61-70 points;
- (E)-Sufficient 51-60 points.

#### Negative grades are:

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

• (F) - Failed - 40 points or less, which means that the work done by the student is insufficient and he/she will have to study the subject again.

In case of FX, an additional examination is scheduled no later than 5 days after the announcement of the results. The grade received at the additional examination is not summarized with the grade received at the final assessment.

Assessment of the scientific research component(s):

a) with the highest praise (summa cum laude) - excellent performance;

b) with great praise (magna cum laude) - result exceeding the requirements in all parameters;

c) with honor (cum laude) - a result that exceeds the requirements;

d) satisfactory (bene) - an average level work that meets the basic requirements;

e) sufficient (rite) - a result that, despite its shortcomings, still meets the requirements;

f) insufficient - an unsatisfactory level work that cannot meet the requirements due to significant deficiencies in the work;

g) completely unsatisfactory (sub omni canone) - a result that completely fails to meet the requirements

The research component is evaluated once, at the stage of dissertation defense, with a final grade.

The teaching and research component of the educational program of doctoral studies and the procedure for their evaluation are posted on the University website.

## Fields of employment

- Private organizations and production facilities for processing livestock, poultry, food products of animal origin;
- Educational institutions;
- Ministry of Environment Protection and Agriculture of Georgia.

#### Human and material resources needed to implement the program

The program is provided with adequate human and material resources.

Additional information on the human and material resources of the program is provided in the attached documents.

Number of attached syllabi: 7