



საქართველოს ტექნიკური უნივერსიტეტი
GEORGIAN TECHNICAL UNIVERSITY

Approved by
Resolution № 1234 of the
Academic Council of GTU
dated July 16, 2014

Amended by
Resolution № 01-05- 04/171 of
the Academic Council of GTU
dated November 24, 2022

Master's Educational Program

Program Title

მევენახეობა და მეღვინეობა

Viticulture and Winemaking

Faculty

აგრარული მეცნიერებების და ბიოსისტემების ინჟინერინგი

Agricultural Sciences and Bio Systems Engineering

Program Head

Professor Nino CHKHARTISHVILI

Qualification to be Awarded

Master of Viticulture and Enology

Will be awarded upon completion of at least 120 credits of the educational program

Language of Teaching

Georgian

Prerequisite for Admission to the Program

A person with at least a bachelor's degree or an equivalent academic degree (according to the detailed field of study area classifier: interdisciplinary - "Viticulture and Winemaking", "Biology", "Environmental studies", "Food Processing", "Vegetation and animal husbandry", "Horticulture") who is enrolled through Master's examinations (General Master's Examination and examination/s as determined by the GTU) is eligible to study in the Master's program. Examination questions/tests will be posted on the GTU Training Department website, at least one month prior to the examinations. Admission to the program after passing the Master's exams is possible according to the rules established by the Ministry of Education and Science of Georgia.

It is mandatory to provide a certificate/document proving proficiency in English at B2 level.

Applicants educated abroad (who have completed a foreign language program) are not required to take an exam or present a certificate.

An applicant who is unable to present the above certificate is required to take an English language test at the GTU computer center.

Program Description

The program is based on the ECTS system; 1 credit is equal to 25 hours, which includes both contact and independent work hours. The distribution of credits is presented in the curriculum. The program lasts 2 years (4 semesters) and includes 120 credits (ECTS). One semester includes 20 weeks, of which the learning process takes place over a period of 15 weeks.

Before the beginning of the semester, the Rector of the University issues an order on the progress of the academic semester, which is provided on the web page, which gives detailed information on the progress of the semester, prescribes the minimum limit and deadlines.

The distribution of 120 credits in the educational program of Master's degree Viticulture and Winemaking is as follows: 79 credits are allocated to the educational courses, of which 70 credits are compulsory education courses and 9 credits are elective education courses. The educational program includes field practice and industrial internship with a total of 11 credits. 30 credits are allotted for the research component.

Research component:

Involves research work aimed at developing the Master's student's ability to make independent theoretical and practical reasoning and conclusions.

Detailed information about the Master's program and instructions for completing the thesis to be submitted for obtaining the academic degree of master's are given at the following electronic address: "Georgian Technical University's Regulations for Master's Degree Program."

Program Objective

The objective of the Master's program is to teach the student:

- Modern and innovative methods of cultivation and care of vineyards, based on the varietal diversity of grapevines in the field of world viticulture, the full cycle of agro-technological processes carried out in the vineyard, and the peculiarities of management.
- Traditional, modern, innovative technologies of grape processing in the production of world wines and alcoholic beverages of grape origin, taking into account international standards of viticulture and winemaking; International methods of qualitative and sensor evaluation of wines and beverages and systems put into practice, planning and management of experiments in viticulture and winemaking using international scientific methodology.
- To prepare qualified and competitive on the labor market staff/Master of Viticulture and Winemaking, with theoretical and practical skills, who will manage the entire production chain from vineyard cultivation to the final product.

Learning Outcomes/Competences (general and professional)

- Has deep and systematic knowledge of the field of viticulture and winemaking, possesses organizational and seasonal management principles of viticulture and winemaking, determines the seasonal phases of vine development and the physiological processes in the plant, the influence of agroclimatic conditions on the quality of vines and wine, efficient and sustainable systems of integrated vineyard soil and water management, modern trends in the field and uses them in the development of new, original ideas;
- Identifies widespread pest-diseases, implements integrated protection systems for the purpose of prevention; independently plans vineyard maintenance operations in accordance with modern requirements; assesses unforeseen problems arising in the process of plant growth and development and uses new original ways to solve them;
- In order to determine the optimal harvest date independently defines the ripeness of grapes and the quality of its harvest, appropriate technological schemes of its processing;
- In accordance with the current regulations, independently manages grape growing-processing processes and monitoring of winemaking operations, independently chooses the calculation and use of necessary equipment and devices during technological processes, management and implementation of general and specific technological operations of production, implementation of effective, modern methods and measures in order to perfect the products;
- Identifies wine diseases, considers the causes of their occurrence and ways of their elimination; is guided by the requirements and standards for wine degusting;
- Determines the methods of grape and wine analysis, the physico-chemical processes during grape processing, discusses the decisions necessary during the processes and the ways of their implementation;
- Is able to search for new, original ways of solving complex problems arising in the field of viticulture and winemaking in a new, unforeseen and multimedia environment, independently carry out research using the latest methods and approaches in the field of viticulture and winemaking;
- On the basis of critical analysis, develops substantiated conclusions about the problems of viticulture and winemaking, based on the latest data, carries out an innovative synthesis of information, and when communicating with the academic or professional community, formulates own conclusions, arguments and research methods;
- Independently evaluates own learning process, plans the need to continue learning and directs it;
- Adheres to the norms of ethical and professional responsibility, presents the existing and innovative visions in the field of viticulture and winemaking.

Methods of achieving learning outcomes (teaching-learning)

- Lecture Seminar (group work) Practical Laboratory Practice
 Course work/Project Master's thesis Consultation Independent work

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, collaborative work, case study, demonstration, induction, laboratory work, analysis, synthesis, writing work, E-learning, deduction, oral or verbal work, explanation, action-oriented learning, project development and presentation.

Student's Knowledge Assessment System

The student's knowledge is assessed on a 100-point scale.

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.

Research component: completion and defense of the Master's Thesis - a person who has completed all the educational components provided by the educational program will be allowed to defend the Master's Thesis.

The completed qualifying thesis is the result of the independent research work of the Master's student. Submission, public defense and **assessment of the completed qualification work are carried out once, the assessment is done with 100 points.**

Fields of employment

- Sectoral public, private, non-governmental and international sectors;
- Ministry of Environment and Agriculture, its affiliated sectoral agencies and regional services;
- Laboratories, experimental and pilot farms and bases;
- Degustation commissions.

Opportunities for continuing education

PhD educational programs

Human and material resources needed to implement the program

The program is provided with adequate human and material resources. For additional information, please find the attached documentation

Number of attached syllabi: 33