Master's Educational Program

Program Title

სასურსათო ტექნოლოგია
Food Technology

Faculty

აგრარული მეცნიერებების და ბიოსისტემების ინჟინერინგი
Faculty of Agricultural Science and Bio-system Engineering

Program Head/Heads

Professor Teimuraz RUKHADZE

Qualification to be Awarded

Master of Food Technology
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 equivalent academic degree 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 without passing Master's exams is possible according to the rules established by the Ministry of Education and Science of Georgia.

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. The rector of the GTU issues an academic calendar before the beginning of the semester, which is published on the website.

The distribution of 120 credits in the Master's educational program " Food Technology" is presented as follows: 50 credits are allocated for compulsory courses, 10 credits for the elective courses in the specialty and 20 credits for the elective modules. 40 credits are allocated to the research component.

Research component:

It 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 degree and instructions for completing the thesis 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 program is to provide the student with in-depth systematic knowledge in various areas of food technology, to teach the technological schemes of food production, methods and techniques of production, physical and chemical processes in production, appropriate machines. To discover new food resources and create new types of products based on them, to look for ways to solve problems in the field and to participate in scientific work.

Learning Outcomes/Competences (general and sectoral)

Knowledge and understanding - deep and systematic knowledge in the field of food technology, allowing to develop new, original ideas, realize ways of solving a particular problem. Use of industry information technologies and software packages; Development of skills in planning, design and implementation of technological processes. Knowledge of the regularities and peculiarities of the flow of technological processes.

Ability to apply knowledge in practice - will be able to independently conduct research using the latest methods and approaches; take care of the efficiency of the technological scheme of the enterprise and quality management system. Carrying out research, design and technical project using the latest methods and approaches. Complying with the norms, rules and standards set for the operation of technical facilities and equipment. Promoting and developing experimental and technological innovations. Evaluating the performance of machines and technological lines and their further modernization.

Ability to make conclusions – Forming sound conclusions based on critical analysis of complex and incomplete information in food technology; Innovative synthesis of information based on the latest data; Forming critical thinking in process modeling and problem solving.

Forming sound conclusions regarding food technology based on critical analysis, adequate response to problems. Adjustment of technological regulations and calculation of new resources taking into account further improvement of products and market needs. Evaluation of expertise-checking against standards and other regulatory documents. Optimal and proper organization of experimental research using computer calculation and computer simulation methods.

Communication skills - communicate their findings, perspective and innovative proposals, arguments and research methods of food technology problems with the academic or professional community in Georgian and foreign languages.

Ability to learn - to conduct learning independently, to understand the specifics of the learning process, to plan a strategy for professional growth and to identify learning directions.

Values - evaluate one's own and others' attitudes towards values and promote new values; defense of established norms of professional values, ethics and morals;

Argumentation of the perspective of the sphere development on the basis of professional values in political, economic and social aspects of the country; - Establishing values and new values related to the profession in cooperation with colleagues.

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, problem-based learning (PBL), brain storming, synthesis, writing work, deduction, role-playing and situational games, oral or verbal work, explanation, practical work, cooperative learning, 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.**

The evaluation rule and procedure are determined by Resolution No. 01-05-04/133 of August 14, 2020 "Georgian Technical University's Regulations for Master's Degree Program", approved by the Academic Council of the University, Appendix 2

For the rules of evaluation of the educational component of the Master's educational program, see the Instructions for Managing the Educational Process at Georgian Technical University at the following electronic address.

Fields of employment

Food industry enterprises, research and expert laboratories, higher education institutions, scientific centers.

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: 34