

Ilia State University
Faculty of Natural Sciences and Medicine
Master's Program - Food Science

Curriculum

Faculty/School	Faculty of Natural Sciences and Medicine
Program Title	Food Science
Academic Degree Awarded	The Degree of Master of Food Science
Program Duration/ECTS	4 semesters, 120 credits (1 credit = 25 hours)
Launching Date of the Program & Program Update	The program was developed in February 2013, updated in 2018 and 2020. The program can be updated at the beginning of each semester to improve the learning process.
Language of Instruction	Georgian
Head/Heads of the Program	Professor Davit Mikeladze Associate Professor Tamar Barbakadze
Admissions Requirements	
<p>Admission to the master's degree is based on the results of the Unified Master's Examinations and the intra-university oral exam. During the exam, attention is paid to the student's motivation, knowledge of the fundamentals of biochemistry, general biology and natural sciences. The student's English language competence (at least B1 level) will also be checked.</p> <p>Applicants to the master's program should preferably have a bachelor's degree and relevant qualifications in the exact, natural sciences, medicine and related fields.</p> <p>Information about the conditions, requirements, assessment components and criteria of the entrance exams is provided in detail in the "Document of Admission to the Program" and is published on the university's website in the "Admission" section.</p>	
Program Objectives	
<p>The objective of the program is to train a specialist in the field of food science, who will have systematic knowledge of the chemical composition of food products, modern technology of laboratory analysis, biochemical and microbiological safety of products, will be able to determine the effectiveness of product processing, quality control and safety processes in the enterprise, and study modern complex problems in the field of food science using the latest research methods.</p>	
Learning Outcomes	
<p>The graduate:</p> <ol style="list-style-type: none"> 1. has deep and systematic knowledge of the chemical composition, biotechnology, packaging and storage of food; 2. can determine the mechanisms of effects of beneficial and toxic compounds in food products using the latest knowledge in the field of modern molecular biomedical sciences (allergology, biochemistry, microbiology, toxicology, dietetics); 3. can assess the risk to human health posed by food intake; 4. define a complex problem in the field of food science and plan and conduct scientific research for its study adhering to the norms of scientific ethics and laboratory safety, using modern methods of biochemical, genetic and microbiological analysis and research; 5. can determine the effectiveness of processes related to processing, quality control and safety of food in the conditions of the enterprise and their compliance with the standards provided by the legislation of Georgia and internationally recognized ones; 6. can use scientific information and communication technology for scientific communication in the native and English languages in front of an academic and professional audience; 7. can identify learning needs and plan and implement learning process independently; 8. can participate in the process of establishing new values in the field based on his/her own research. 	

Program Structure

Program Structure - 120 credits:

- General block - 12 credits
- Compulsory courses of the program - 54 credits
- Elective courses of the program - 24 credits (within 6 credits, the student can choose both elective courses within the program and courses from other master's programs)
- Production practice - 6 credits
- Master's thesis - 24 credits

In the case of necessity, the student will have the opportunity to take the bachelor's course(s) without credits (the so-called remedial course).

Teaching Methods

- Lecture
- Seminar
- Verbal method;
- Written method
- Method of practical work
- Laboratory method
- Project-based teaching method
- Discussion/debate
- Group work
- Demonstration method
- Elements of e-learning
- Shadowing

Note: The teaching methods used in the program are specified in the syllabi of the respective courses.

Student Assessment

The assessment is based on a 100-point system. Points will be distributed and defined as follows:

(A) 91 - 100 Excellent

(B) 81 - 90 Very Good

(C) 71 - 80 Good

(D) 61 - 70 Satisfactory

(E) 51 - 60 Sufficient

(FX) 41 - 50 Did not pass, which means that the student is required to work more to pass and is allowed to retake the exam once through independent work

(F) 0 - 40 Fail, which means that the work done by the student is not enough and he/she has to retake the course

Assessment components, criteria and assessment methods are presented in the syllabi of the training courses.

Employability

A graduate of the program can be employed at: food and beverage manufacturing enterprises, food product quality control laboratories, sanitary-epidemiological and disease control institutions; as well as in structures controlling the quality of food products, governmental and non-governmental structures participating in the development of standards; at higher educational institutions and scientific-research institutions of the relevant profile. Graduates of the program can continue their education in doctoral studies.

Teaching and Learning Resources

- Lecture halls;
- Scientific - research laboratories (laboratories of the Institute of Chemical Biology, research laboratories of genetically modified products)
- University library;

- “Argus” an electronic selection system;
- Turnitin, Moodle;
- Organizations involved in program implementation and curriculum development within the framework of the memorandum:
 - University of Parma
 - Hypermarket Goodwill
 - Laboratory of the Ministry of Agriculture
 - Global Beer Georgia LLC