

Ilia State University
Faculty of Natural Sciences and Medicine
Bachelor's Program - Biology

Curriculum

Faculty	Faculty of Natural Sciences and Medicine
Program Title	Biology (Major and Minor)
Academic Degree Awarded	Bachelor of Biology
Program Duration/ECTS	8 semesters – 240 credits (1 credit – 25 hours) <ul style="list-style-type: none"> • Major – 120 credits • Free component: General Module – 60 credits • Minor / Free component – 60 credits
Launching Date of the Program & Program Update	The program was developed in 2011, updated in 2020. The program can be updated before the start of each academic semester.
Language of Instruction	Georgian
Head/Heads of the Program	Prof. Davit Mikeladze Prof. Revaz Solomonias Prof. Nikoloz Oniani
Admissions Requirements	
Those wishing to enroll in the program must have passed the Unified National Examinations in accordance with the regulations established by the Ministry of Education, Science, Culture and Sport of Georgia. Detailed information related to the exams will be posted on the website www.naec.ge .	
Program Objectives	
The goal of the program is to give the student broad modern knowledge in biology, to teach them the structure and functions of living organisms, the peculiarities of their growth, distribution, origin and development; to develop in students the necessary research, ethical and practical skills for laboratory and academic work.	
The program is aimed at developing the skills of oral and written communication, analysis, argumentation, assessment and creative solving of a problem, effective teamwork.	
Learning Outcomes	
<ol style="list-style-type: none"> 1. The graduate has knowledge of a wide range of Biological Sciences, knows the basic theories and concepts of biology; 2. The graduate knows and uses the principles of taxonomy and classification of living organisms; 3. The graduate can identify and analyze the construction and vital activities of cells and living organisms; understands the basic processes of metabolism, which underlie the existence of the organism and its relationship with the outside world; 4. The graduate explains the regularities and molecular mechanisms of heredity and variability, the vital processes taking place in living organisms, their physiological characteristics, the basic functions and mechanisms, which underlie the organism's vital activity; 5. The graduate uses knowledge about the basic types of cells and their functions, cell metabolism, growth and development of the organism to describe/explain biological phenomena; 	

6. The graduate can use various types of laboratory research methods according to pre-defined instructions; understands the principles of biosafety and laboratory safety and the necessity of their use;
7. The graduate can identify important issues, problems in the field, conduct research projects in various fields of biology according to pre-defined recommendations, instructions, guidelines, in which the graduate uses the appropriate instruments and adheres to the norms of academic integrity and bioethics;
8. The graduate can collect-explain data on biological processes, analyze, synthesize, do quantitative and qualitative evaluation of information, form a reasoned conclusion;
9. The graduate can prepare a theoretical and/or practical research report on ideas, existing problems and their solutions in biological processes and present it to specialists and non-specialists in both Georgian and English using modern communication technologies and field terminology;
10. The graduate can assess the learning process and correctly identify further learning needs.

Teaching Methods

- Lecture;
- Seminar;
- Practical method;
- Laboratory method;
- Discussion/debate;
- Group work;
- Demonstration method;
- Implementation of research projects.

Program Structure

The scope of the program is 240 credits:

Free component: General Module — 60 credits

Major — 120 credits

Minor / free component — 60 credits

Free component: General Module:

Introduction to Modern Thought I and II — 12 credits

Academic Techniques — 6 credits

English language Courses — 24 credits

Introductory Courses — 18 credits (Physics, Life Sciences, Earth Sciences)

Major:

1. Compulsory courses — 72 credits, including:

- Course of quantitative block — 6 credits
- Compulsory courses — 66 credits

2. Compulsory-Elective courses — 36 credits

- Block A (at least 18 credits)
- Block B

3. Elective courses — 12 credits

Minor / free component — 60 credits

Student Assessment

- (A) 91-100 Excellent
(B) 81-90 Very Good
(C) 71-80 Good
(D) 61-70 Satisfactory
(E) 51-60 Sufficient
(FX) 41-50 Insufficient – 41-50 points, more work is required to pass and the student is given one more chance to retake the exam through independent work
(F) 0-40 Fail – 40 points and less, considerable further work is required and the student has to repeat the course

The assessment components and criteria are given in the syllabi of the training courses.

Employability

- Laboratories of various purposes (chemical, biochemical, genetics, clinical);
- Chemical, medical, veterinary, agricultural, biotechnological, pharmaceutical, food product and perfume industries;
- Educational and scientific-research institutions of the relevant profile;
- Zoos, botanical gardens and museums;
- Sector related to environmental protection and use of natural resources; non-governmental and international environmental organizations;
- General education schools (in the case of one-year Teacher Training Educational Program). Environmental projects and programs

Teaching and Learning Resources

- Lecture halls;
- Educational laboratories;
- University library;
- Electronic selection system Argus
- Learning portal Moodle and program Turnitin;
- Scientific institutes and centers of the university (Institute of Chemical Biology, T. Oniani Laboratory of Sleep-Wakefulness Cycle, Institute of Biophysics, Institute of Ecology, Institute of Zoology, Institute of Botany, Scientific-Research Institute of Medicine);
- University bases (Kazbegi, Grigoleti, Dedoplistskaro, Abastumani, Akhaldaba, etc.).