# Ilia State University Faculty of Business, Technology and Education Mathematics (Major and Minor programmes) Bachelor Program: Curriculum

Faculty	Faculty of Business, Technology and Education
Program Title	Mathematics (Major and Minor programmes)
Program Duration/ECTS Credits	6 semesters, 60 credits (1 credit- 25 hours)
Language of Instruction	Georgian
The Date of Program development and	The program was developed in 2007, and updated in 2020. The
Update	program is updated at the beginning of every academic year.

### Admission Requirements to the Program

Minor program can be elected by the student on the third semester of the Bachelor's program in compliance with the regulations currently in effect at Ilia State University.

# **Program Objectives**

The aim of the program is to raise student's awareness of the major fields of higher mathematics, fundamental notions and key concepts of these fields, show organic links between them and wide spectrum of their application.

### Learning Outcomes and Competencies can be

- 1. The graduate has broad knowledge of some fundamental concepts, key mathematical notions, principles and theories and can identify organic links between them;
- 2. Within the basic knowledge mentioned above, the graduate can select and apply mathematical methods to solve tasks
- 3. The graduate has logical mathematical reasoning and proof skills.

## Teaching Methods

- Lecture;
- Seminar:
- Practical method;
- Discussion/debate;
- Method of demonstration;
- Elements of electronic teaching.

**Note:** Specific teaching methods are identified for each individual program component and are listed in relevant syllabi.

#### **Program Structure**

Within the minor program of mathematics students have to accumulate 60 credits according to the following scheme:

- Mandatory Courses of Mathematics Program- 42 credits, including:
  - Introduction to Mathematical Analysis 6 credits
  - Basics of Mathematics 6 credits
  - Mathematical Analysis I 6 credits
  - Mathematical Analysis II 6 credits
  - Analytic Geometry I 6 credits
  - Higher Algebra I 6 credits
  - Probability Theory and Mathematical Statistics I 6 credits
- 2. Mandatory Elective Courses of Mathematics Program- 18 credits

#### Student Evaluation

Student assessment should be based on a 100-point grading scale:

(A) 91-100 Excellent

- (B) 81-90 Very Good
- (C) 71-80 Good
- (D) 61-70 Satisfactory
- (E) 51-60 Sufficient
- (FX) 41-50 Unsatisfactory meaning a student needs more effort to pass an examination and is given an extra chance to pass an additional examination through independent work.
- (F) Failure 40 and less of the maximum of grades, meaning the student's effort is not enough and he has to learn the subject anew.

**Note:** The detailed assessment components and criteria are described in more detail in the respective syllabus of each course of the program.

# Necessary Auxiliary Conditions / Resources For Learning

- Auditoriums;
- Laboratories;
- Computer classes;
- University library;
- Institute for Fundamental and Interdisciplinary Mathematical Studies;
- Computing Centre;
- Electronic system ARGUS;
- Academic process management system Moodle and Turnitin, a program integrated in it
- symbolab.com
- MAXIMA computer algebraic system
- https://www.latex-project.org/