



## Bachelor's Educational Program

### Program Title

საავიაციო ინჟინერია

Aeronautical engineering

### Faculty

სატრანსპორტო სისტემებისა და მექანიკის ინჟინერიის ფაკულტეტი

Faculty of Transport Systems and Mechanics Engineering

### Program Head/Heads

Professor Ramil ZUKAKISHVILI

### Qualifications to be awarded and the extent of the program in terms of credits

#### **Bachelor of Engineering in Aeronautical Engineering**

*Will be awarded by combining 225 credits of study courses and 12 credits of independent components, in case of completion of not less than 240 credits.*

### Teaching language

Georgian

### Prerequisite for admission to the program

Only the person with a state certificate confirming complete general education or a document equivalent to it, has the right to study at the bachelor's level who will be enrolled in accordance with the procedure established by the legislation of Georgia.

### Program Description

The program is compiled according to the ECTS system, 1 credit corresponds to 25 academic hours; it implies both contact and independent hours. The volume of the academic year is 60 ECTS credits. Duration of the

program is 4 years (8 semesters), one semester includes 20 weeks.

To be awarded the degree "Bachelor of Engineering in Aeronautical Engineering", the student must accumulate at least 240 credits, which ensures the achievement of the program goals and the results required for the main qualification at the level of the Bachelor's degree descriptor of the Higher Education Qualifications Framework.

The educational program is made up of learning courses and free components relevant to the main field of study. Courses of content relevant to the main field of study are presented in the form of compulsory and elective courses: 196 credits of compulsory courses, 10 credits of practice, 7 credits of a bachelor's thesis. Elective education courses of the specialty 15 credits. Free components 12 credits. The student chooses the free component (12 credits) from the educational program of the relevant level at the Georgian Technical University, taking into account the prerequisite for admission to the educational course.

Detailed information about the organization of the educational process, the selection of components of the educational program, the assessment of student achievements, the appeal of the assessment of learning results, the accumulation of credits by students is described in the "Guidelines for the Management of the Educational Process of the Georgian Technical University", which can be found at the link..

### **Program objective**

The objective of the program is to prepare a Bachelor of Engineering in Aeronautical Engineering with a broad knowledge of the fundamental principles of flight theory and construction of aircrafts, in accordance with the requirements of the labor market and the development trends of the field of aeronautical engineering, in the processes of designing, constructing, manufacturing and maintaining aircrafts, equipped with the skills of modern engineering technologies to participate in the development trends of the field, safety of technological processes and environmental requirements.

### **Learning outcomes/competences (general and professional)**

**Describes** the theories and principles of general technical and engineering sciences based on aspects of the latest knowledge;

**Explains** the principles and theories of aircraft design, construction and manufacture;

**Selects** modern engineering technologies to perform design and production works in accordance with the instructions;

**Carries out** engineering project works according to pre-defined guidelines;

**Participates** in the technological processes of a production of flying machines in compliance with safety, ecological and economic requirements;

**Analyzes** the problems arising in the design and production processes of aircrafts;

**Demonstrates** effective teamwork and cooperation skills in practice, in a multidisciplinary environment;

**Presents** opinions, presentations, written and graphic information with specialists and non-specialists using modern communication technologies;

**Realizes** professional and ethical responsibility when making decisions;

**Plans** for continuing professional development with the need to update knowledge and continue learning.

### **Methods of achieving learning outcomes (teaching-learning)**

Lecture  Seminar (group work)  Practical  Laboratory  Practice  
 Course work/Project  Bachelor's Thesis  Consultation  Independent work

**In the learning process, depending on the specifics of a specific study course, teaching-learning methods are used, which are reflected in the programs (syllabi) of the relevant study course:**

discussion/debates; collaborative work; case study; demonstration; inductive; deductive; analysis; synthesis; verbal or

oral; written work; explanatory; 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 - 41-50 assessment points, which means that the student needs more work to pass and is allowed to take the additional exam once with independent work;
- **(F)** - Failed - 40 evaluation points and less, which means that the work done by the student is not enough and he/she has to study the subject again.

In case of receiving FX in the component of the educational program, GTU will schedule an additional exam at least 5 days after the announcement of the results of the final exam. The number of points obtained in the final assessment is not added to the grade received by the student at the additional exam. The grade obtained at the additional exam is the final grade and is reflected in the final grade of the educational program component. In case of receiving 0-50 points in the final evaluation of the educational component, taking into account the evaluation received at the additional exam, the student will be assigned an F-0 score.

The program part of the assessment of the level of achievement of the student's learning results in each component consists of an interim assessment and a final exam. The midterm assessment in turn includes the ongoing activity and the midterm exam.

Each assessment form and component has a specific share in the final assessment from the total evaluation score (100 points). In particular, the maximum score of the interim assessment is no more than 60, and the maximum score of the final exam is no less than 40.

Each form of assessment includes an assessment component/components, which includes an assessment method/methods, and the assessment method/methods are measured by assessment criteria. The right to pass the final exam is granted to a student who passed the minimum competence barrier (scored at least 30 points) in the interim assessment. The dates of the midterm exam and final/additional exams will be specified in the Rector's order on the semester schedule.

### **Fields of Employment**

"Bachelor of Engineering in Aeronautical Engineering" represents the following areas of employment for the graduate: state or private aviation enterprises and institutions, airlines, airports and civil aviation services; aviation units of the defense forces and government military aviation structures; design and production facilities.

### **Opportunities for continuing education**

Master's degree educational programs

### **Human and material resources needed to implement the program**

The program is provided with appropriate human and material resources. Detailed information is provided in the attached documentation.

Number of attached syllabi: 77