ევროპის უნივერსიტეტი
EUROPEAN UNIVERSITY

Reviewed at the Faculty Council Session:

Minutes №89-25, 13.06.2025

Approved by the Decision of the Governing Board::

Resolution №17, 17.06.2025

Last changes were discussed at the faculty council meeting:

Minute №81-26, 09.02.2026

Approved by a resolution of the Governing Board:

Resolution №4, 18.02.2026

Bachelor's Educational Program

Computer Science

Level of Higher Education: Bachelor's Degree (First Cycle of Higher Academic Education)

Language of Instruction: English

Type of Educational Program: Academic

Detailed Field and Code: 0613 - Software and Applications Development and Analysis

Qualification to be Awarded: Bachelor of Computer Science

Duration of Study: 4 years (8 semesters)

Total Program Credits: 240 ECTS

Head of the Educational Program: Prof. Besik Tabatadze, Email: tabatadze.besik.eu.edu.ge

Admission Requirements

To be admitted to the Bachelor's Program in Computer Science, an applicant must hold a document verifying complete general education or its equivalent and must be granted the right to study at European University LLC according to the ranking of scores obtained in the Unified National Examinations.

To be admitted to the program, applicants are required to pass the following subjects in the Unified National Examinations:

1. Georgian Language and Literature – The applicant must meet the minimum competency threshold as defined by national legislation;
2. English language - the applicant must pass the minimum competence threshold: 50%+1;
3. One of the following subjects: Mathematics or Physics – The applicant must meet the minimum competency threshold as defined by national legislation. The number of places allocated for each subject (Mathematics/Physics)

must not be less than 10% of the total number of places announced for the program. The final allocation proportions are determined by the Head of the Program prior to the official announcement of admission quotas.

The right to enroll in the program without passing the Unified National Examinations is granted to:

Persons who, on the basis of the Order No. 224/N of the Minister of Education and Science of Georgia of December 29, 2011, "On Approval of the Procedure for Submission and Review of Documents by Entrants/Master's Degree Candidates/Students with the Right to Study without Passing Unified National Exams/Common Master's Exams" have to enroll in the university without passing the unified national exams. The mentioned persons are obliged to confirm the knowledge of English language at the B1 level in accordance with the "Rule for Determining the Language Competence of a European University Student".

Admission to the program is also granted to the following categories of applicants:

On approval of the procedure and fees for transferring from one higher educational institution to another higher educational institution" No. 10/n of the Minister of Education and Science of Georgia dated February 4, 2010, students enrolled under the mobility rule

Relevance of the Program

In the context of globalization, the role of computer science and technology is rapidly growing. In the 21st century, with the introduction of technological innovations, the advancement of artificial intelligence, and the accelerated development of the digital world, the demand for qualified professionals in this field has increased significantly. This trend reflects a growing need for software development and the creation of digital products, which in turn requires highly skilled specialists with expertise in computer science.

Given these circumstances, the preparation of computer science professionals is of vital importance and relevance for the development of the country's economy, commerce, technology sector, and various other domains. Due to the dynamic pace of development in this field, the present bachelor's program is especially relevant, responding both to ongoing national developments and to global technological challenges.

Program Objective

The objective of the Bachelor's Program in Computer Science is to prepare competent and competitive graduates who will:

1. Find necessary information, analyze it, design, develop, and/or implement computation-based projects across diverse domains.
2. Understand the ethical and social aspects of the field of computer science in the context of professional responsibilities.
3. Independently identify the need for adopting new technologies in the field of computer science, possess the skills to explore and study current developments in the discipline, and are prepared for further academic advancement at the next level of study.
4. Communicate effectively with academic and professional communities regarding software projects based on computer science and their development.

Learning Outcomes

The learning outcomes of the Bachelor's Program in Computer Science are aligned with Level 6 of the National Qualifications Framework for Higher Education (First Cycle – Bachelor's Degree) and ensure the achievement of the corresponding outcomes defined in the qualification descriptor.

The program's learning outcomes are also consistent with the sector-specific characteristics for Information and Communication Technologies in higher education, as defined for awarding the academic degree of Bachelor of Computer Science. These outcomes are based on the recommended learning standards provided at: https://eqe.ge/ka/page/static/1030/informaciis-da-komunikaciis-teqnologiebi.

Upon completion of the Bachelor's Program in Computer Science, graduates will have developed the following competencies:

1. Describe the theoretical foundations of computer science and identify the technologies required for software design and development.
2. Explain the importance of applying core computer science concepts in relation to other disciplines during the software development process, and describe the characteristics of computer architecture components, as well as the fundamental principles of configuring network infrastructure and working with operating systems.
3. Review data structures and data processing algorithms and solve complex, computation-based problems using appropriate technologies.
4. Analyze complex computational problems, assess the suitability of applying relevant domains of computer science to define appropriate solution strategies, and utilize diverse data processing techniques to solve problems.
5. Communicate effectively on professional topics and actively participate in group discussions related to the field of computer science.
6. Independently find, select, and apply relevant modern technologies, examine the foundational subject area for which the software is intended, and plan personal professional development based on individual learning needs.
7. Identify challenges in the field of computer science and define approaches to address them with ethical awareness and professional responsibility.

*The learning outcomes of the educational program are aligned with the program objectives (see **appendix 1** – Mapping the Relevance of Objectives and LOs).*

*The components of the educational program ensure the achievement of the intended learning outcomes (see **appendix 2** – Map of the Programme LOs).*

Program Volume

The Bachelor's Program in Computer Science is based on the European Credit Transfer and Accumulation System (ECTS), is student-centered, and is grounded in the student's academic workload required to achieve the program objectives.

The duration of the program is 4 academic years (8 semesters) and includes a total of 240 ECTS credits.

One ECTS credit corresponds to 25 astronomical hours. A credit reflects the amount of work a student is expected to complete in order to acquire the learning outcomes of the respective course. It includes both contact hours and independent work, such as attending lectures, working in a working group/practical work, working on projects, preparing for and taking midterm and final examinations, and preparing/defending the bachelor's thesis.

Each semester, a student is expected to complete 30 ECTS credits (30 credits = 750 hours), and 60 credits per academic year. However, depending on the specifics of the program and the individual workload of the student, the number of credits taken in an academic year may be fewer or more than 60, but not more than 75 ECTS credits.

One academic year consists of 42 weeks, with each semester comprising 21 weeks. Of these, 15 weeks are allocated for instruction and 6 weeks for examination periods. The 8th and 9th weeks are designated for midterm examinations, the 18th and 20th weeks for final examinations, and the 21st week for make-up examinations. The interval between a final exam and the corresponding make-up exam must be no less than 5 days following the publication of the final exam results.

Program Structure

The Bachelor's Program in Computer Science consists of 240 ECTS credits, distributed as follows:

Compulsory Components – 180 ECTS credits

- Compulsory Free Component aimed at developing general transferable skills – 19 ECTS credits
- Compulsory Component of the Main Field of Study – 161 ECTS credits, which includes the Bachelor's Thesis (15 ECTS credits)

Elective Components – 60 ECTS credits

- Elective Component of the Main Field of Study – 35 ECTS credits
- Free Elective Component – 25 ECTS credits, also aimed at developing general transferable skills. Within this component, students are given the opportunity to select courses from any undergraduate program offered by the university, subject to the prerequisites of the chosen course.

It is mandatory to confirm or achieve the level of English language proficiency at B2.2 within the framework of the program. The student confirms the level of English language proficiency in accordance with the "Rules for Determining the Language Competence of a Student of the European University". In case the student confirms the level of English language proficiency at B2.2 in accordance with the "Rules for Determining the Language Competence of a Student of the European University", he/she is exempted from mastering the English language component and acquires the credits intended for the English language (10 credits) through elective courses of the main field of study or through credits

determined for the free component. The credits of the optional free component, within the framework of which the student is given the opportunity to choose courses from any educational program of the relevant level operating at the university, can be acquired through elective courses of the main field of study of Bachelor's programme in Computer Science.

The courses offered within the Bachelor's Program are designed to achieve the objectives of the program and to develop the competencies required for the qualification awarded upon completion. The logical sequence of competency formation defines the content, structure, and curriculum of the program. The structure and curriculum of the program support the consistent and coherent attainment of its defined goals and intended learning outcomes.

The components of the educational program, the number of ECTS credits allocated to each component, their prerequisites, and their distribution across semesters are defined in the program curriculum (see Appendix 5 – Programme Curriculum).

Student Assessment System

The assessment process is used to determine the extent to which a student's achievements correspond to the specific learning outcomes of the program. In the Bachelor's Educational Program in Computer Science, student knowledge is evaluated based on predefined criteria that indicate whether the student has achieved the learning outcomes specified by the course.

The student assessment system complies with the "Rule for Calculating Credits for Higher Education Programs," approved by Order №3 of the Minister of Education and Science of Georgia, dated January 5, 2007.

The achievement of learning outcomes is assessed through midterm and final evaluations, the total of which constitutes the final grade. The maximum final grade for a course is 100 points. The weight of the final exam is determined within the framework of the academic freedom of the course instructor, but it may not exceed 40% of the total assessment.

The assessment system includes:

a) Five types of positive assessments:

a) (A) Excellent – 91–100 points;

b) (B) Very Good – 81–90 points;

c) (C) Good – 71–80 points;

d) (D) Satisfactory – 61–70 points;

e) (E) Sufficient – 51–60 points.

b) Two types of negative assessments:

a) (F X) did not pass - 41-50 points of maximum evaluation, which means that the student needs more work to

pass the examination and is given the right to retake (one time) an exam via independent work;

b) (F) Failed – 40 points or less, which means that the work done by the student is not sufficient and he/she has to retake the course/subject.

In the case of a negative evaluation (FX) in a component of the educational program, the student is granted the right to

take an additional exam. This right is also granted if the student has accumulated 51 or more points in the final assessment but has failed to meet the minimum competency threshold established for the final exam. The additional exam must be scheduled no earlier than five days after the announcement of the final exam results. The score received by the student on the additional exam does not include the points previously earned in the final exam. The result of the additional exam is considered the final score and is recorded as the final grade for the corresponding component of the educational program.

The midterm assessment is divided into components. A mandatory component of the midterm assessment is the midterm exam, which is conducted during Weeks VIII–IX. The midterm assessment includes the evaluation of students' performance during group work, the midterm exam, and the student's independent work. The final assessment consists of the evaluation of the final exam. The methods, content, and weighting of both midterm and final assessments are determined by the course instructor within the framework of the respective syllabus. The syllabus also defines the evaluation criteria for each component. A student is eligible to take the final exam only after meeting the minimum threshold for the midterm assessment. The final exam is considered passed only if the student meets the minimum threshold set for it. The minimum competency thresholds are defined as follows: 50% of the midterm assessment and 50% + 1 point of the final exam score.

A course credit is considered earned if the student surpasses both the minimum threshold established for the midterm assessment and the minimum threshold set for the final exam, and the total accumulated score is 51 points or more.

Taking into account the specifics of the course, the teaching staff is authorized to define, through the syllabus, a different (higher) minimum competency threshold for the midterm and final assessments, in accordance with the requirements established by the applicable legislation of Georgia.

Taking into account the course objectives, intended learning outcomes, and the specific nature of the course, the teaching staff is authorized to define a minimum competency threshold within one or more assessment methods. In cases where such thresholds are established, the award of credit is conditional upon the student meeting the minimum competency threshold in each assessment method, as well as in both the midterm and final assessment components, and achieving a total score of at least 51 points based on the combined results of the midterm and final assessments.

Preparation and Evaluation of the Bachelor's Thesis

The Bachelor's Thesis is completed in accordance with the general requirements defined by the "Regulations for the Completion of the Bachelor's Thesis" of European University, as well as the additional requirements set out in the syllabus of the Bachelor's Thesis.

The midterm assessment of the thesis includes evaluations by the thesis supervisor and the reviewer (80 points), while the final assessment consists of the defense of the thesis before an evaluation committee (20 points). The criteria used for evaluation by the supervisor, reviewer, and committee members, along with other assessment details, are outlined in the Bachelor's Thesis syllabus.

The Bachelor's Thesis ensures the development of basic research skills and the ability to apply the knowledge and competencies acquired through individual courses to practical situations. As such, the thesis serves as a capstone project of the Bachelor's program, aiming to integrate, expand, and deepen the student's knowledge and competencies—acquired throughout the curriculum—by identifying practical problems, proposing solutions, and addressing them through a specific case. The thesis is prepared in consultation with a supervisor, who is selected based on the topic of the thesis.

Field of Employment

Graduates of the Bachelor's Educational Program in Computer Science may be employed in web studios, internet companies, advertising agencies, or any organization that has a specialized department for software development. Graduates will have the opportunity to work in various positions such as programmer, developer (including machine learning developer, web developer, database developer), data scientist, data analyst, network and systems specialist, software support specialist, and others.

The field of computer science responds to contemporary global challenges, making the Bachelor's qualification in Computer Science one of the most in-demand and popular qualifications. This degree provides graduates with the opportunity to work remotely both within the country and internationally.

Opportunities for Further Study

Graduates of the Bachelor's Educational Program in Computer Science are entitled, in accordance with the applicable legislation, to continue their studies at the second level of higher academic education, Master's programs in any field, either in Georgia or abroad, provided that the respective higher education institution does not restrict admission to the program based on the applicant's undergraduate specialization.

Material Resources for the Implementation of the Bachelor's Program

To implement the Bachelor's Educational Program in Computer Science and to achieve the intended learning outcomes, European University is equipped with the necessary material and technical infrastructure and resources. Specifically:

The university building is furnished with the appropriate inventory required for program implementation, including lecture halls and information and communication technologies with the necessary software and internet access:

For the implementation of the courses included in the program, both theoretical and practical, classrooms and a computer lab are allocated, all of which are equipped with the necessary inventory, computer equipment, and resources required for the respective learning activities. In addition, two specialized laboratories have been established to support the program: the EU LAB, equipped with high-performance computers from Dell's Alienware Gaming series featuring Intel Core i9 processors, and the IT LAB, designated for information technology-related instruction. These facilities ensure the smooth delivery of the educational process and enable practical training when needed.

The library is equipped with the literature specified in the educational program, with all required readings available in either electronic or printed format. It also provides access to a wide range of electronic resources. European University is connected to international electronic library networks, ensuring that both students and academic staff have access to the following major academic databases: EBSCO EP Package ELIT (comprising 11 databases), eLibrary for Libraries (eLFL) (comprising 8 databases), and Elsevier's scientific platforms, including Scopus and ScienceDirect.

The Examination Center supports the assessment processes carried out within the framework of the program.

Workspaces for academic and invited staff provide a comfortable and functional environment within the university, supporting teaching, research, and other academic activities.

Internship opportunities are ensured within the Bachelor's Educational Program in Computer Science through collaboration with partner organizations, based on memoranda of cooperation signed between the university and those institutions.

Human Resources for the Implementation of the Bachelor's Program

The implementation of the Bachelor's Educational Program in Computer Science is ensured by a team of highly qualified personnel. The courses included in the program are delivered by academic and invited staff with the appropriate experience and expertise (*see Appendix 6 – Program Teaching Staff*).

Note: The appendixes of the Bachelor's Educational Programme in Computer Science are considered an integral part of the programme.

Head of the Bachelor's Educational Program in Computer Science:

Professor Besiki Tabatadze

Acting Head of the Quality Assurance Office:

Sophio Khundadze