



The University Of Georgia

Program name:	Computer Engineering
Study Level:	Undergraduate
Program leader:	Kakhaber Tavzarashvili
Study language:	English
Qualification:	Bachelor of Computer Engineering
Program capacity:	180
Program permission:	Foreign high-school graduates who received complete general education abroad or its equivalent and the last two years of complete general education had studied abroad or students who lived abroad for the last two or more years and who are currently studying abroad in higher educational institutions recognized by the legislation of the host countries will be able to enter the program without passing Uniform National Entrance Examinations according to Order №224/N of the Minister of Education and Science of Georgia (December 29, 2011). If the applicant does not have the English language certificates in FCE (First Certificate in English), he / she must pass the English language B2 level university test (60% positive assessment).
Program goals:	The aim of the program is to facilitate the development of computer engineering by prepare competent, highly qualified specialists who will have competitive higher education and skills in line with modern standards. The undergraduate program is designed to provide the student with a thorough engineering skills in electronics, computer engineering, and communication. To give knowledge of modern standards in information technologies, design and implementation of systems and processes, compilation of simple software code, analysis of various engineering and mathematical tasks and innovative technological thinking, to develop teamwork skills with real experience in project implementation. Graduates of the program will be able to be employed in Electronic, Computer, Telecommunications and Energy companies, Government organizations, Banks and other private companies where the competencies of a computer engineering specialist are required. International certification courses integrated into the program provided by the school as additional offers, such as Cisco, Microsoft, Oracle Academic, iOS training courses, will give students the opportunity to receive international certificates.
Methods for Attaining Learning Outcomes:	• Lecture - Seminar • Working with the book • Demonstration • Discussions • Practical lessons • Laboratory exercises • Interactive lessons • Team work • Problem solving and their solution • Verbal and oral method • Critical analysis • Problem-solving tasks
Learning outcomes:	Outcomes • Identify, formulate, and solve complex computer engineering problems by applying principles of engineering, science, and mathematics. • Apply computer engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. • Communicate effectively with a range of audiences. • recognize ethical and professional responsibilities in computer engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. • Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. • Develop and conduct appropriate experimentation, analyze and interpret data, and use computer engineering judgment to draw conclusions. • Acquire and apply new knowledge as needed, using appropriate learning strategies. • Uses the basic knowledge and methods of computer engineering to solve the tasks necessary for the technical implementation of electronic devices, computer systems services, as well as information technologies.
Date of approval:	11-11-2022
Approval protocol number:	#51/19
Date of program update:	
Update protocol number:	

Program details:

The student can be guided by the proposed curriculum and individually draw up his/her personal curriculum, taking into account the requirements of the subjects. To complete a bachelor's project in the last year of study, the student chooses a topic of thesis from the proposed areas. The bachelor's project is carried out in groups, which contributes to the development of filed knowledge and teamwork skills. The program provides for an optional course internship, which will help the student, if necessary, to better formulate himself when choosing a topic for a bachelor's project.

Teaching Process Characteristics:

In order to obtain a bachelor's degree, a student must complete 180 credits, which includes the following distribution of credits:

- Program Elective 18 ECTS;
- Program Core 144 ECTS;
- Compulsory University 18 ECTS.

University Core

Code	Subject	ECTS	Semester
LING0015	Georgian as a Foreign Language I (General)	6	1
KART1220E	Academic Writing	6	1
LING0017	Georgian as a Foreign Language II (General)	6	2
HIST1118E	Civilizations and Developments of Humankind	6	3
BUSN1210E	Basics of Business and Economics	6	4
Total ECTS to be taken:		18	

Program Core

Code	Subject	ECTS	Semester
EENG1111E	Programming for Engineers - Python	6	1
EENG1120E	Fundamentals of Electronics	6	1
MATH1115E	Calculus I	6	1
EENG1122E	Programming for Engineers - Python OOP	6	2
EENG2424E	Circuit Theory	6	2
MATH1123E	Linear Algebra and Analytical Geometry	6	2
MATH1166E	Calculus II	6	2
PHYS2003E	Physics I	6	2
EENG2212E	Analog Electronics	6	3
INFO3301E	Data Structures and Algorithms	6	3
MATH3112E	Discrete Mathematics	6	3
PHYS2004E	Physics II	6	3
EENG2005E	Engineering Mathematics	6	4
EENG2113		6	4
EENG3113E	Digital Electronics	6	4
EENG1002	Neuronal systems	6	5
EENG2015E	Microcontrollers Programming	6	5
INFO3302E	Operation System (Windows)	6	5
INFO3303E	Computer Architecture	6	5
MATH2004E	Probability and Statistics	6	5
EENG2008	Modeling program tools	6	6
EENG4235E	Computer Security	6	6

EENG4010E	Bachelor project	12	6
		Total ECTS to be taken:	144

Program Elective

Code	Subject	ECTS	
EENG1002E	Neuronal systems	6	
EENG1003E	Physics for Quantum Computing	6	
EENG1213E	Semiconductor devices	6	
EENG1215E	Signal Processing	6	
EENG2008E	Modeling program tools	6	
EENG2012E	Digital Communication	6	
EENG2013E	Signal Processors	6	
EENG2115E	Communication technologies	6	
EENG3115E	Engineering Electromagnetics	6	
EENG4012E	Practice	6	
INFO1107E	IT Services and Projects Management	6	
INFO1111E	Introduction in Programming (C++)	6	
INFO1112E	Office Systems	6	
INFO1125E	Database Management Systems (MS SQL)	6	
INFO3131E	Object Oriented Programming C++	6	
INFO3211E	Computer network security	6	
INFO3257E	Oracle: Programming with PL/SQL	6	
INFO4114E	Artificial Intelligence	6	
MATH4118E	Fundamentals of Cryptology	6	
		Total ECTS to be taken:	18

[Matrix Of Privequisites](#)

Point	GPA	The university assessment	The general assessment in Georgia	
97-100	4,00	A+	A	Excellent
94-96	3,75	A		
91-93	3,50	A-		
87-90	3,25	B+	B	Very good
84-86	3,00	B		
81-83	2,75	B-		
77-80	2,50	C+	C	good
74-76	2,25	C		
71-73	2,00	C-		
67-70	1,75	D+	D	Satisfactory
64-66	1,50	D		
61-63	1,25	D-		
51-60	1,00	E	E	Sufficient
Not passed				
41-50		FX	FX	Insufficient
<40		F	F	Failed

