საქართველოს ტექნიკური უნივერსიტეტი
GEORGIAN TECHNICAL UNIVERSITY

Approved by
Academic Council of GTU
2022 , 4 August
Order №01-05-04/105

Bachelor's Educational Program

Title of the Program

არქიტექტურა
Architecture

Faculty

დიზაინის საერთაშორისო სკოლა
International Design School

Program Supervisor/ Supervisors

Professor Gocha Mikiashvili

Qualification to be Awarded, and the Number of Credits in the Program

Bachelor of Architecture
The qualification will be awarded in case of fulfilling not less than 240 ECTS credits combined by 220 credits of academic courses relevant to the major field of study and 20 credits of free components.

Teaching Language

English

Admission Prerequisites to the Program

The right to study in an English bachelor's educational program has an owner of the State certificate or equivalent document, that confirms completion by him/her of the general education course, and who will be enrolled by the rule stated by Georgian legislation.
Besides, in order to be eligible to study for Bachelor's English-language educational program "Architecture" the applicant must:
1. Pass an interview with the GTU special commission, for which he/she must verbally prove his own motivation for studying the program of architecture and submit his / her own graphic works (freehand and technical drawings) (See the provision for interview in freehand and technical drawing. www.gtu.ge/ids-en/).
2. Submit the certificate confirming the knowledge of English on a level not less than B2 or international certificate of TOEFL (The Test of English as a Foreign Language) of II certification level.
The applicant is free to submit a certificate confirming his/her competence, if he/she has completed a general education course in English. In absence of the appropriate certificate or another analogous document, the applicant will have an interview in English. The temporary commission staffed by the experts from GTU will implement the interview.

Program Description

The global architectural services market size was valued at USD 344.9 billion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 7.4% from 2022 to 2030. The demand for services can be attributed to the increasing construction activities across the globe. Rapid urbanization in developing countries is resulting in increasing residential and commercial construction activities. Moreover, governments are focused on introducing affordable home projects across various countries. This rise in construction activities is expected to support the demand for architectural services, in turn, boosting the market growth. https://www.grandviewresearch.com/industry-analysis/architectural-services-market

The basis for the creation of the program is the increase in demand for English-speaking architectural profile specialists in the local and international market, which in case of our country is related to the Association Agreement of Georgia with the European Union, the process of visa liberalization with the European Union, and Georgia's application for EU membership candidate status.

The undergraduate English-language educational program "Architecture" is compiled according to the "Rule of Planning, Development, Evaluation and Development of Educational Programs" elaborated by the Technical University of Georgia. In addition, the experience of foreign universities is taken into consideration. Among them are:

- Cornell (USA) University. Weblink to the Program at Cornell University;
- Polytechnic University of Milan (Italy). WEB Link to the Program at PoliMi;
- University of Barcelona (Spain). WEB Link to the Program at Barcelona University;
- Gdansk (Poland) University of Technology. WEB Link to the Program at Gdansk University of Technology;
- Aydin University of Istanbul (Turkey). WEB Link to the Program at Istanbul Aydin University;

The English-language undergraduate education program "Architecture" corresponds to the sectoral benchmark requirements of higher education in architecture and level VI of the National Qualifications Framework and Learning Fields Classifier https://eqe.ge/en/page/parent/787/erovnuli-kvalifikatsiebis-charcho and take into account the recommendations of the Charter of Architectural Education developed by the International Union of Architects (UIA) and UNESCO.
http://estatedocbox.com/Architects/126310286-Charter-unesco-uia-for-architectural-education.html

Bachelor's English Educational Program "Architecture" is a four-year program. It comprises a wide range of courses in the Humanities, Social and Technical Sciences; The program includes mandatory and elective courses of Basic specialty and Free Components. The combination of Basic specialty training courses emphasizes the nature of architecture as a cultural, social, and technological practice intimately tied to the increasingly urgent questions raised by the man-made and natural environment.

The program is made up on the bases of the European Credit Transfer System (ECTS) and includes 240 credits. Among them 220 credits are given to academic courses the content of which corresponds to the main field of study, and 20 credits to free components. Credits are distributed as follows: out of 220 credits of academic courses, corresponding to the main field of study, 211 credits are mandatory and 9 credits are mandatory-optional, 5 credits are assigned to practice, 10 credits to the Bachelor's Architectural Project. The student chooses free components from the accredited English-language educational program of the Technical University of Georgia, following the prerequisites for admission to the subject.

One semester consists of 30 credits; therefore, a year consists of 60 credits.
One credit equal to 25 hours, comprising in-class and independent work.

The educational process at the Technical University of Georgia is regulated by the following rules and instructions:
Instructions for managing the educational process at the Technical University of Georgia
https://gtu.ge/Study-Dep/Files/Pdf/sasw_proc_%20mart_inst_20.08.2021_SD.pdf
The procedure for conducting and evaluating STU students' practice
https://gtu.ge/Study-Dep/Files/Pdf/praqtika_18_SD.pdf
Procedure for completing the undergraduate research project/thesis
https://gtu.ge/Study-Dep/Files/Pdf/2sabalavro_%20nashromi_%202019_SD.pdf

Program Objectives

To prepare a competitive, practical work-oriented architect with competencies that are in compliance with international and local requirements, and who will have: High sense of civic consciousness, creative activity, and spatial thinking; the knowledge of basics of architecture, its essence, regularities of development, key principles and methods of design, modern technologies, architectural and construction norms, rules, and legislative demands;

To develop student decision-making skills, ability to share best practices in the field of architecture, skills of professional communication in English, critical analyzes of problems related to the field and drawing the proper conclusions; Who will have general and sectoral competencies that ensure competitiveness in the architectural services market;

Learning Outcomes / Competencies (general and professional)

After completing the educational program, the graduate:

- Possesses the basics of architecture history, theory and related academic fields: art, technology, social and humanitarian sciences and understands their impact on the quality of architectural design;
- Explains socio-cultural, urban, architectural values, responsibilities for environmental protection and architectural heritage, public requirements, customer and user interests, legal regulations and norms of professional ethics of architects, and the role and importance of the architectural profession;
- Describes the procedures and processes necessary for the implementation of architectural projects/concepts, as well as some of the latest methods and aspects of design theory;
- Differentiates and identifies structures, materials, construction processes, technologies, and other engineering issues related to building systems;
- Quantitatively analyzes and critically evaluates complex, incomplete, and contradictory pre-project data, clearly conveys the results of their analysis, and convincingly defends the decisions made based on them;
- Formulates complex tasks related to the creation of the project concept and the design of buildings, ways to solve them, and makes appropriate decisions;
- Creates architectural project - using various research methods, imaginative and creative approaches, spatial thinking, and analysis of collected information, taking into consideration humanitarian, social, demographic, cultural, architectural-urban, climatic preconditions, aesthetic, functional, technological, safety, ergonomics, technical regulations, environmental and current legal requirements;

- Considers and reflects in the project, as in a complete summary document, constructions, technologies, technical, aesthetic, and operational properties of materials, as well as transport, communication, technical and security systems;
- Uses electronic, graphic, modeling, verbal, written, multimedia, and other methods, a full range of educational and information resources obtained from various sources, and, the results of its analysis;
- Demonstrates effective communication with people involved in the process of architectural activities, in compliance with the requirements of professional ethics and the principles of responsibility, expressed by verbal, written, graphic and technological means;
- Determines individual learning needs and plans his / her own professional development priorities.

Methods and Activities of Achieving Learning Outcomes (Teaching - Learning)

☒ Lecture ☒ Seminar (working in groups) ☒ Practical class ☒ Laboratory ☒ Practice
☒ Course work/project ☒ Consultation ☒ Independent work

Based on the specifics of course, the appropriate methods and appropriate activities listed below are employed, reflected in the relevant academic courses (syllabi): Discussion/debates, Cooperative teaching, Collaborative work, Problem-based learning (PBL), Heuristic, Case study, Brainstorming, Role-playing games and simulations, Demonstration, Inductive, Deductive, Analytical, Synthetic, Verbal or oral, Written, Explanatory, Activity-oriented teaching, Designing and presenting a project.

Student Knowledge Assessment System

Grading system is based on a 100-point scale.

Positive grades:

- **(A)** - Excellent - grades between 91-100 points;
- **(B)** – Very good - grades between 81-90 points
- **(C)** - Good - grades between 71-80 points
- **(D)** - Satisfactory - grades between 61-70 points
- **(E)** - Pass - the rating of 51-60 points

Negative grades:

- **(FX)** - Did not pass - grades between 41-50 points, which means that the student is required to work more to pass and is given the right, after independent work, to take one extra exam;
- **(F)** – Failed - 40 points and less, which means that the work carried out by the student did not bring any results and he/she has to learn the subject from the beginning.

A year of the study program (2 semesters, 19-19 weeks) is scheduled accordingly: 15 weeks of each semester is dedicated to the study, IX week to – mid-term exam, XVII and XVIII weeks-submission of documentary material and final exams, XIX week is for the additional exams, if necessary.

Assessment of the student's level of achievement includes mid-term and final assessments in each component of the program. The midterm assessment consists of current activities and a mid-semester

exam. The minimum total positive score for the midterm assessment (sum of current activity and mid-semester exam) is 30;
The Weekly midterm (current activity) assessment is graded by a maximum of 30 points; One mid-semester exam is graded by a maximum of 30 points; the maximum assessment points for Final/Additional exam is at least 40 points.
The final exam can be taken by a student who obtained no less than 30 points during mid-term assessments. The minimum positive score for the final/additional exam is 21 points. In case of failing (FX) of the final examination, the student will have a right to the one additional examination, after the expiration of at least 5 days from announcement of results.

Forms, methods, criteria, and scale descriptions for assessment of students' knowledge are given in the attached Syllabi.
The detailed information is given in the Instructions for managing the educational process at the Technical University of Georgia
https://gtu.ge/Study-Dep/Files/Pdf/sasw_proc_%20mart_inst_20.08.2021_SD.pdf

Sphere of Employment

- International organizations financing and controlling infrastructure development projects;
- Design firms and studios corresponding to the architectural profile;
- Architectural-construction and development companies;
- Foundations and services of preservation of historical and cultural heritage;
- Scientific-research organizations studying historical-cultural heritage;
- Advertising companies;
- Firms conducting measuring works;
- State structures of spatial arrangement, infrastructural development, and architectural supervision;
- Construction project coordinating, permitting and supervising bodies within the local self-governmental organizations;
- Expertise Organizations in the field of architecture.

Potential for Further Education

Master's Educational Programs

Human and Material Resources Required to Implement the Program

The Program provides the appropriate human and material resources. For more information, see the attached documentation.

A number of Attached Syllabi: 45

Courses in the Program

№	Learning Course	Course Prerequisites	ECTS Credits							
			Year I		Year II		Year III		Year IV	
			Semester							
			I	II	III	IV	V	VI	VII	VIII
1	Elements of Linear Algebra and Analytic Geometry	-	**5**							
2	Basics of Architectural Composition	-	**5**							
3	Freehand Drawing	-	**5**							
4	Graphics for Architectural Design	-	**5**							
5	CAD Studio	-	**5**							
6	Professional Language and verbal communications - Level I	-	**5**							
7	Pre-modern Architecture	-		**5**						
8	Surveying in Architecture	-		**5**						
9	Advanced Drawing	Freehand Drawing		**5**						
10	3D Visualization	-		**5**						
11	Professional Language and verbal communications - Level II	Professional Language and verbal communications - Level I		**5**						
12	Design Studio for Beginners	-		**5**						
13	Modernism in Fine Arts and Architecture	Pre- modern Architecture			**5**					
14	Structures 1	-			**5**					
15	Architectural Material Science	-			**5**					
16	Portfolio for Architects	-			**5**					
17	Security and The City	-			**5**					
18	Design Studio and Project Presentation	Design Studio for Beginners			**5**					
19	Architecture Today	Modernism in Fine Arts and Architecture				**5**				
20	Basics of Ergonomics for Architects	-				**4**				
21	Georgian History and Culture	-				**5**				

№	Learning Course	Course Prerequisites	ECTS Credits							
			Year I		Year II		Year III		Year IV	
			Semester							
			I	II	III	IV	V	VI	VII	VIII
22	Structures 2	Structures 1				**5**				
23.1	Green Design and Nature-Based Solutions for Urban Environment	-				**5**				
23.2	Environmental Protection and Ecology 2	-								
24	Creative Design Studio	Design Studio and Project Presentation				**6**				
25.1	Principles of Social Sciences	-					**4**			
25.2	Design and Social Anthropology	-								
25.3	Philosophy and Architecture	-								
26	Architectural Physics and Building Technologies	-					**5**			
27	Landscape Architecture	-					**5**			
28	Sustainable Design Studio	Creative Design Studio					**6**			
29	Urban Planning and Design	Security and the City					**5**			
30	Free component	-					**5**			
31	Architect and Society	-						**3**		
32	Occupational Health & Safety	-						**4**		
33	Sustainable Architecture	-						**5**		
34	Urban Design Studio	Urban Planning and Design						**5**		
35	Contextual Design Studio	Sustainable Design Studio						**8**		
36	Free component	-						**5**		
37	Engineering equipment of buildings	-							**5**	
38	Architectural Work Placement (Practice)	Contextual design studio; Occupational Health and Safety							**5**	

№	Learning Course	Course Prerequisites	ECTS Credits							
			Year I		Year II		Year III		Year IV	
			Semester							
			I	II	III	IV	V	VI	VII	VIII
39	Sustainable Interior Design Studio	Sustainable Design Studio							**5**	
40	Innovative Design Studio	Contextual Design Studio							**10**	
41	Free component	-							**5**	
42	Architectural Theory and Criticism	Architecture today								**5**
43	Ethics and Legislative Basics of Architectural and Urban Design.	Architect and Society								**5**
44	Architectural Project Management	Architect and Society; Innovation Design Studio.								**5**
45	Bachelor's Architectural Project	All academic courses of content relevant to the major field of study (except for 8th semester courses)								**10**
46	Free component	-								**5**
Per Semester			**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
Per Year			**60**		**60**		**60**		**60**	
Total			**240**							

Program Curriculum

№	Course Identification Code	Learning Courses	Hours									
			ECTS Credits/Hours	Lecture	Seminar (work in the group)	Practical classes	Laboratory	Practice	Course work/project	Mid-semester exam	Final exam	Independent work
1	MAS31708E2-LP	Elements of Linear Algebra and Analytic Geometry	5/125	30		30				1	2	62
2	AAC10709E2-P	Basics of Architectural Composition	5/125	15		30				1	2	77
3	ART32909E1-P	Freehand Drawing	5/100			100				2	3	20
4	ART33009E1-P	Graphics for Architectural Design	5/125			45				3	3	74
5	ICT43109E1-P	CAD Studio	5/125			45				2	2	76
6	LEH12609E4-P	Professional Language and verbal communications - Level I	5/125			45				1	1	78
7	HEL21209E2-LS	Pre- modern Architecture	5/125	30	15					1	2	77
8	PHS45803E1-LBR	Surveying in Architecture	5/125	10			10	25		1	1	78
9	ART33109E1-P	Advanced Drawing	5/125			100				2	3	20
10	ICT43209E1-P	3D Visualization	5/125			45				2	2	76
11	LEH12709E4-P	Design Studio for Beginners	5/125			45				3	3	74
12	AAC10809E2-K	Professional Language and verbal communications - Level II	5/125						45	1	1	78
13	HEL21309G2-LS	Modernism in Fine Arts and Architecture	5/125	30	15					1	2	77
14	AAC44801E3-LP	Structures 1	5/125	15		30				1	1	78
15	EET87104E2-LS	Architectural Material Science	5/125	15	30					1	2	77
16	BUA57309E1-LSP	Portfolio for Architects	5/125	15	15	15				1	1	78
17	SES21909E1-LS	Security and The City	5/125	15	30					1	2	77
18	AAC10909E2-K	Design Studio and Project Presentation	5/125						45	3	3	74
19	HEL21409E2-LS	Architecture Today	5/125	30	15					1	2	77

20	ART22809E1-LS	Introduction to Ergonomics	4/100	15	15					1	1	68
21	HEL21509E2-LS	Georgian History and Culture	5/125	15	30					2	2	76
22	AAC44901E3-LS	Structures 2	5/125	15		30				1	1	78
23.1	AAC51609E1-LS	Green Design and Nature-Based Solutions for Urban Environment	5/125	15	30					1	1	78
23.2	EET27004E2-LSB	Environmental Protection and Ecology 2	5/125	15	15		15			1	1	78
24	AAC11009E2-K	Creative Design Studio	6/150						60	3	3	84
25.1	SOS41209E1-L	Principles of Social Sciences	4/100	15	15					2	2	66
25.2	SOS48209E1-LS	Design and Social Anthropology	4/100	15	15					3	3	64
25.3	HEL31709E1-LS	Philosophy and Architecture	4/100	15	15					1	2	67
26	PHS57709G1-LS	Architectural Physics and Building Technologies	5/125	15	30					2	2	76
27	AAC51709E1-LS	Landscape Architecture	5/125	15	15				15	2	2	76
28	AAC11109E2-K	Sustainable Design Studio	6/150						60	3	3	84
29	AAC23309E1-LS	Urban Planning and Design	5/125	15	30					1	2	77
30		Frere component	5/125									
31	SOS48309E1-LS	Architect and Society	3/75	15	15					1	1	43
32	HHS20103E2-LP	Occupational Health & Safety	4/100	15		15				1	1	68
33	AAC11209E2-LS	Sustainable Architecture	5/125	15	30					2	2	76
34	AAC23409E1-K	Urban Design Studio	5/125						45	1	2	77
35	AAC11309E2-K	Contextual Design Studio	8/200						90	3	3	104
36		Frere component	5/125									
37	AAC44701E3-LP	Engineering equipment of buildings	5/125		30					2	2	76
38	AAC11409E2-R	Architectural Work Placement (Practice)	5/125					75		10	5	35
39	AAC11509E2-PK	Sustainable Interior Design Studio	5/125			30			15	2	2	76
40	AAC11609E2-K	Innovative Design Studio	10/250						120	3	3	124
41		Frere component	5/125									
42	AAC11709E2-LS	Architectural Theory and Criticism	5/125	15	30					2	1	77
43	LAW16309E2-LS	Ethics and Legislative Basics of Architectural and Urban Design.	5/125	15	30					1	1	78
44	BUA37909E3-LS	Architectural Project Management	5/125	15	30					1	2	77

45	AAC11809E2-K	Bachelor's Architectural Project	10/250						120	3	3	124
46		Frere component	5/125									

Program Supervisor/Supervisors — Gocha Mikiashvili

Head of Quality Assurance Service
of the International Design School — Malkhazi Razmadze

Dean of the Faculty — Nicholas Shavishvili

Agreed with
Quality Assurance Service of GTU — David Makhviladze

Approved by
The council of the International Design School
29 July 2022, Protocol N7

Chairman of the International Design School Council — Nicholas Shavishvili