



**KIMYO INTERNATIONAL UNIVERSITY IN TASHKENT**  
PROGRAMME SPECIFICATION  
PROFESSIONAL  
**BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

**Approved**

Rector



**Prof Janpolat Kudaybergenov**



## The Program of Study Bachelor of Science (B. Sc.) in Civil Engineering

### 1. Bachelor of Science (B. Sc.) in Civil Engineering

Teaching and Awarding Institution	Kimyo International University in Tashkent
Final award	Bachelor of Science (B. Sc.) in Civil Engineering
Program Title	Civil engineering
Program Director	Inamov Bahodir
Mode of Study	Full-time
Normal Duration of the program	Four years
Language of study	Uzbek, Russian and English
Date of production	July 2018

### 2. Admissions Policy.

In order to become a student in the direction of Civil Engineering, an applicant will need to know the basics of drawing, planning and mathematics.

### 3. Educational Aims of the Program.

The educational Programme will allow you to gain deep theoretical knowledge and practical skills in the development of projects for the development of construction and engineering.

The Programme aims to train professionals with sufficient theoretical and practical skills to work as professional engineers.

- to reveal the tasks of modern design and production processes in the field of architecture and engineering.
- to develop the ability to make creative and innovative decisions based on research activities.
- to develop the ability to design residential and public buildings and structures by developing students' personal qualities, to form general cultural and professional competencies.
- to form students' sense and understanding of strength, benefits and mechanical properties of building materials in the field of engineering.
- to develop students' ability for analytical, creative, independent thinking.
- to determine on the basis of an analysis of national standards and requirements in higher education, foreign needs and expectations of stakeholders in professional activities.

As well as research and design in the field of creating, transforming, preserving, renovating, adapting and using a harmonious, comfortable and safe built environment, and its components, monitoring the implementation of projects.

### 4. Programme outcomes (include reference to graduate attributes where appropriate).

On successful completion of the programme students should be able to demonstrate the following

#### Knowledge and Understanding

- Knowledge of the principles of design and modeling of the construction and engineering.
- Knowledge and possession of modern computer programs for design and development.
- Communication skills. Students must communicate the benefits of constructional approaches simply and clearly.

- Know about the creations of the great engineers of the past and be able to introduce them into the modern, innovative world of construction.
- Some of the most important skills engineers should acquire include efficient communication skills, mathematical skills, and creativity.
- Conduct a dialogue in the state and foreign languages, use the rules of speech etiquette, read literature in the specialty without a dictionary in order to search for information.

#### **Cognitive Skills**

- The engineers must, first of all, be able to analyze the terrain, building and environment. Identify the main tasks and methods of competent design.
- Awareness of the social significance of their future profession, possessing high motivation to perform professional activities.
- define the goals and objectives of accompanying design studies in civil engineering;
- to identify modern trends in the development of engineering survey methods, design technologies;
- to navigate current problems and advanced achievements in the field of theoretical issues of civil engineering and technical state of the construction industry, in matters of ecology, energy efficiency and others.

#### **Practical and Professional Skills**

- to choose efficient constructions, construction materials and technologies for driving buildings and structures.
- use the practical skills of knowing technologies of construction, being familiar with construction materials and their purposes to use in building construction.
- to form creative and innovative concepts of engineering solutions in design.
- to identify the main physical and mechanical properties of building materials, the technology of their manufacture, methods of increasing use efficiency, methods of engineering surveys in construction, basic concepts of building codes and standards, methods of engineering mechanics
- to develop sections of the engineering part of the basis of calculation and design of buildings and structures, composition and content of design documentation, methods of theoretical and experimental studies of building structures, soils of foundations, foundations of economic theory of construction, issues of labor protection and safety.
- take part in scientific and practical conferences in creative competitions, exhibition events to promote projects and innovative achievements in civil engineering;

#### **Transferable Skills**

- Take responsibility for your own training and independently create and implement plans to achieve specific goals in the field of construction and civil engineering.
- Demonstrate effective communication and presentation skills.
- To be a leader and initiator in creative groups in the field of construction and civil engineering;

#### **Self-appraise and reflect on practice.**

**On successful completion of the programme students should be able to demonstrate the following graduate attributes:**

- Being familiar with calculation of constructions.

- Making projects of the buildings.
- Establishing the technologies of construction.
- Being familiar with economy and estimating in construction.

### 5. Programme Curriculum.

Students follow 254 ECTS credits of compulsory modules, with 12 ECTS credits of elective modules. Student workload is allocated as follows: 64-68 ECTS per academic year, 27-34 ECTS per semester, 30 ECTS per undergraduate practice (a minimum of 5 weeks):

**KIMYO INTERNATIONAL UNIVERSITY IN TASHKENT  
PROGRAMME CURRICULUM  
COURSE SCHEDULE  
FOR B.Sc. IN CIVIL ENGINEERING**

No	Code	Module / Subject	YTIT credits	ECTS
<b>Year One</b>				
<b>First semester</b>				
<b>General modules</b>				
1	CEN01	RUSSIAN LANGUAGE 1	2	3
2	CEN02	ENGLISH LANGUAGE 1	4	6
3	CEN03	INTRODUCTION TO CIVIL ENGINEERING	2	3
4	CEN04	MATHEMATICAL ANALYSIS 1	4	6
5	CEN05	PHYSICS	3	5
6	CEN06	COMPUTER SCIENCE 1	2	3
7	CEN07	ENGINEERING DRAWING 1	3	5
<b>Total</b>			<b>20</b>	<b>31</b>
<b>Second semester</b>				
<b>General modules</b>				
8	CEN08	MATEMATECAL ANALYSIS 2	4	6
9	CEN09	COMPUTER SCIENCE 2	2	3
10	CEN10	INTRUDUCTION CONSTRUCTION MATERIALS	3	5
11	CEN11	THEORETICAL MECHANICS	3	5
12	CEN12	CONSTRUCTION MACHINES	2	3
13	CEN13	ENGINEERING DRAWING 2	3	5
<b>Elective module (1 out of 4)</b>				
14.1	CEN14	TECHNICAL ENGLISH	3	5
14.2	CEN15	RUSSIAN LANGUAGE 2	2	3
14.3	CEN16	INTRODUCTION TO COMPUTER GRAPHICS	3	5
14.4	CEN17	ARCHITECTURAL BASIC DESIGN 1	3	5
<b>Total</b>			<b>20</b>	<b>32</b>
<b>Year Two</b>				
<b>Third semester</b>				
<b>Compulsory modules</b>				
15	CEN18	MECHANICS OF MATERIALS 1	3	5
16	CEN19	APPLIED MATHEMATICS	2	3

18	CEN21	CONSTRUCTION MATERIALS AND EXPERIMENTS	3	5
19	CEN22	CAD FOR CIVIL ENGINEER 1	3	5
20	CEN23	ARCHITECTURE OF CIVIL AND INDUSTRIAL BUILDINGS 1	3	5
Elective module (1 out of 3)				
21.1	CEN24	ENGINEERING GEOLOGY	2	3
21.2	CEN25	BUILDING ECOLOGY	2	3
21.3	CEN26	ARCHITECTURAL BASIC DESIGN 2	2	3
<b>Total</b>			<b>20</b>	<b>37</b>
<b>Fourth semester</b>				
<b>Compulsory modules</b>				
22	CEN27	CAD FOR CIVIL ENGINEER 2	3	5
23	CEN28	MECHANICS OF MATERIALS 2	3	5
24	CEN29	SURVEYING 2	4	6
25	CEN30	ARCHITECTURE OF CIVIL AND INDUSTRIAL BUILDINGS 2	3	5
26	CEN31	SOIL MECHANICS AND FOUNDATION	2	3
27	CEN32	MODERN BUILDING TECHNOLOGY	3	5
Elective module (1 out of 3)				
28.1	CEN33	HYDRAULIC ENGINEERING	2	3
28.2	CEN34	MODERN BUILDING MATERIALS AND TECHNOLOGIES OF THEIR APPLICATION	2	3
<b>Total</b>			<b>20</b>	<b>32</b>
<b>Summer internship</b>				
29	CEN35	INTERSHIP I	3	9
<b>Year Three</b>				
<b>Fifth semester</b>				
<b>Compulsory modules</b>				
30	CEN36	APPLIED CAD FOR CIVIL ENGINEER 1	3	5
31	CEN37	REINFORCED CONCRETE AND STONE STRUCTURES	4	6
32	CEN38	STRUCTURAL MECHANICS 1	3	5
33	CEN39	CONSTRUCTION PHYSICS	2	3
34	CEN40	WOOD AND COMPOSITE STRUCTURES	2	3
35	CEN41	STEEL STRUCTURE ENGINEERING	2	3
36	CEN42	ORGANIZATION AND PLANNING OF CONSTRUCTION	2	3
Elective module (1 out of 3)				
37.1	CEN43	ENERGY EFFICIENCY OF BUILDINGS	2	3
37.2	CEN44	ARCHITECTURE OF UNIQUE BUILDINGS AND STRUCTURES	2	3
37.3	CEN45	CITY CADASTRE	2	3
<b>Total</b>			<b>20</b>	<b>31</b>

<b>Compulsory modules</b>				
38	CEN46	APPLIED CAD FOR CIVIL ENGINEER 2	3	5
39	CEN47	STRUCTURAL MECHANICS 2	2	3
40	CEN48	ELECTRICAL ENGINEERING AND POWER SUPPLY	3	5
41	CEN49	ENGINEERING COMMUNICATIONS AND HEATING SYSTEM	3	5
42	CEN50	WATER AND WASTEWATER ENGINEERING	3	5
Elective module (1 out of 3)				
43.1	CEN51	TECHNICAL OPERATION OF BUILDINGS AND STRUCTURES	3	5
43.2	CEN52	METROLOGY STANDARDIZATION AND CERTIFICATION IN CONSTRUCTION	3	5
43.3	CEN53	RECONSTRUCTION OF BUILDINGS AND STRUCTURES	3	5
<b>Total</b>			<b>17</b>	<b>28</b>
<b>Summer internship</b>				
44	CEN54	INTERSHIP II	3	9

Year Four				
Seventh semester				
<b>Compulsory modules</b>				
45	CEN55	CONSTRUCTON ECONOMICS AND ESTIMATING	2	3
46	CEN56	CONSTRUCTION CODE	3	5
47	CEN57	CONSTRUCTION OF HIGH-RISE BUILDING.	2	3
48	CEN58	CONSTRUCTION MANAGEMENT	2	3
49	CEN59	SEISMIC RESISTANCE OF BUILDINGS AND STRUCTURES	2	3
50	CEN60	CONSTRUCTION PROJECT	3	5
51	CEN61	CONSTRUCTION SAFETY AND LABOR PROTECTION	2	3
Elective module (1 out of 3)				
52.1	CEN62	ROAD ENGINEERING AND UNDERGROUND STRUCTURES	3	5
52.2	CEN63	ASSESMENT OF THE TECHNICAL CONDITION OF BUILDINGS AND STRUCTURES	3	5
52.3	CEN64	LEGISLATION IN CONSTRUCTION	3	5
<b>Total</b>			<b>18</b>	<b>28</b>
Eighth semester				
<b>Compulsory modules</b>				
53	CEN65	UNDERGRADUATE PRACTICE	5	18
54	CEN66	GRADUATION RESEARCH (PROJECT)	2	9
<b>Total</b>			<b>8</b>	<b>27</b>
<b>Total for the 4 years</b>			<b>149</b>	<b>259</b>

## 6. Award calculation.

Each semester lasts 17 academic weeks, which includes final examinations.



Assessment by letter system	Assessment by digital system	%-content	ECTS grades	Assessment by traditional system
A+	4.5	95-100	A	Excellent
A	4.0	90-94		
B+	3.5	85-89	B	Very good
B	3.0	80-84		
C+	2.5	75-79	C	Good
C	2.0	70-74		
D+	1.5	65-69		
D	1.0	60-64	D	Satisfactorily
F	0.0	0-59		
FA	0.0	Fail for abs.	FX, F	Unsatisfactory

Also, according to ECTS, students who receive positive marks are divided into five categories: A - 10%, B - 25%, C - 30%, D - 25%, E - 10%. Students who have coped with the educational program and ended up in the underperforming group are divided into two subgroups: FX (unsatisfactory - some more work is required before credit can be granted to this student), and F (unsatisfactory, this student requires significant work further, i.e. no credits are assigned).

#### Criteria of assessment

«A+», «A», «B+» marks are put to students who can freely operate covered materials; does not make mistakes; actively participates in the process of communication; gives full and detailed answers.

«B», «C+», «C» marks are put to students who know the material well, correctly and can express it in a clear and logical way; actively participates in the process of communication; formulates full and detailed answers, but makes minor inaccuracies and mistakes.

«D+», «D» marks are put to students who have knowledge of basic material but have not obtained details, makes inaccuracies; gives not enough correct formulations while answering; breaks logical correction in presenting material; faces difficulties in the process of communication.

«F» (FAIL) mark is put to a student who does not have an idea on the essence of the question; does not have answers; does not participate in the process of communication.

## 7. Methods for evaluating and improving the quality and standards of teaching and learning.

- *The Teaching Team:* Members of the team are asked to identify strengths and weaknesses of the program provision, to identify areas for improvement and requisite staff development. This is done both informally in discussions with the Programme Director and formally through Programme Committee which meets at least two times a year.
- *Students:* All students have the opportunity to comment on the programme and other relevant issues (library, IT, Student support services) through a questionnaire which is administered for each module at the end of the term/year. Their views are also presented to the Programme Committee by the student representatives. Individual students also have opportunities to discuss areas of concern with their personal tutor.
- *Periodic Review:* All existing Programmes undergo major in-depth review at least every three years. These concentrate on the development of the Program, on the learning experience of students and on future plans for the Programme.

## 8. The assessment regulations.

The assessment regulations conform to the Kimyo International University in Tashkent regulations for taught modular programs as outlined in KIUT's Internal rules and regulations.

All assessment elements could compensate each other to achieve the minimum pass mark for the module. Non attempted elements cannot be compensated. The module mark is calculated according to the weighted average of each assessment element (MT, final, projects, tests, presentations, etc. exams) specified in the module descriptors. Successfully passing one of the assessment elements does not automatically imply successful completion of the module.

**Students arriving late and non-attempts for exams without a good reason are classified as FAIL.**

## 9. Teaching and Learning Methods.

### Lectures

Lectures are a major part of the teaching strategy for the program. Formal lectures are an effective way of transferring of basic subject material (core material) and establishing a framework for a module against which other material can be set. Lectures provide an opportunity to deliver a broad overview of a topic and to initiate further research and study by students for tutorials, seminars and private study.

### Practical Workshops

Practical workshops are used extensively in a number of modules throughout the program. In these classes students are able to practice and refine their skills in a supportive environment where they can get feedback from a member of academic staff. Practical workshops represent a valuable transition between theory and the workplace.

## 10. Assessment methods.

The Kimyo International University in Tashkent operates point-rating letter system for assessing educational achievements students, including eight positive marks (from "A +" to "D") with a digital equivalent (from 1.0 to 4.5 points), which ensure the assignment of loans, and two unsatisfactory ratings ("F" and "FA") without loans. The ECTS grading scale includes five positive grades (from "A" to "E"), the "FX" score that can be corrected, and the "F" score without providing.