



YEOJU TECHNICAL INSTITUTE IN TASHKENT

Programme Specification

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



APPROVED
Vice-rector

Prof. Byoung Ryeol Jo

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	Yeuju Technical Institute 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 applicants 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.
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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-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):

**YEOJU TECHNICAL INSTITUTE IN TASHKENT
PROGRAMME CURRICULUM
COURSE SCHEDULE FOR B.Sc. IN CIVIL ENGINEERING**

No	Code	Module / Subject	YTIT credits	ECTS
Year One				
First semester				
General modules				
1	ENGCE001	RUSSIAN LANGUAGE 1	2	3
2	ENGCE002	ENGLISH LANGUAGE 1	4	6
3	ENGCE003	KOREAN LANGUAGE 1	4	6
4	ENGCE004	MATHEMATICAL ANALYSIS 1	6	9
5	ENGCE005	PHYSICS	3	5
6	ENGCE006	COMPUTER SCIENCE 1	3	5
Total			22	34
Second semester				
General modules				
7	ENGCE007	MATEMATECAL ANALYSIS 2	5	8
8	ENGCE008	INTRUDUCTION CONSTRUCTION MATERIALS	3	5
9	ENGCE009	INTRUDUCTION TO CIVIL ENGINEERING	2	3
10	ENGCE010	COMPUTER SCIENCE 2	3	5
11	ENGCE011	THEORETICAL MECHANICS	2	3
12	ENGCE012	CONSTRUCTION DRAWING	4	6
Elective module (1 out of 3)				
13.1	ENGCE013	TECHNICAL ENGLISH	2	3
13.2	ENGCE014	RUSSIAN LANGUAGE 2	2	3
13.3	ENGCE015	KOREAN LANGUAGE 2	2	3
Total			21	33
Year Two				
Third semester				
Compulsory modules				
14	ENGCE016	MECHANICS OF MATERIALS 1	3	5
15	ENGCE017	APPLIED MATHEMATICS	2	3
16	ENGCE018	SURVEYING 1	4	6
17	ENGCE019	CONSTRUCTION MATERIALS AND EXPERIMENTS	3	5

18	ENGCE020	CAD FOR CIVIL ENGINEER 1	3	5
19	ENGCE021	CONSTRUCTION MACHINES	2	3
20	ENGCE022	ENGINEERING GEOLOGY	1	2
21	ENGCE023	ARCHITECTURE OF CIVIL AND INDUSTRIAL BUILDINGS 1	3	5
Total			21	34
Fourth semester				
Compulsory modules				
22	ENGCE024	CAD FOR CIVIL ENGINEER 2	3	5
23	ENGCE025	MECHANICS OF MATERIALS 2	3	5
24	ENGCE026	SURVEYING 2	4	6
25	ENGCE027	ARCHITECTURE OF CIVIL AND INDUSTRIAL BUILDINGS 2	3	5
26	ENGCE028	SOIL MECHANICS AND FOUNDATION	3	5
27	ENGCE029	MODERN BUILDING TECHNOLOGY	3	5
28	ENGCE030	CONSTRUCTION PHYSICS	2	3
Total			21	34
Summer internship				
29	ENGCE031	SURVEYING PRACTICE	3	3
Year Three				
Fifth semester				
Compulsory modules				
30	ENGCE032	APPLIED CAD FOR CIVIL ENGINEER 1	3	5
31	ENGCE033	REINFORCED CONCRETE AND STONE STRUCTURES	4	6
32	ENGCE034	STRUCTURAL MECHANICS 1	3	5
33	ENGCE035	ENERGY EFFICIENCY OF BUILDINGS	2	3
34	ENGCE036	HYDRAULIC ENGINEERING	3	5
35	ENGCE037	WOOD AND COMPOSITE STRUCTURES	2	3
36	ENGCE038	ORGANIZATION AND PLANNING OF CONSTRUCTION	2	3
Total			19	30
Sixth semester				
Compulsory modules				
37	ENGCE039	APPLIED CAD FOR CIVIL ENGINEER 2	3	5
38	ENGCE040	CONSTRUCTION CODE	2	3
39	ENGCE041	STEEL STRUCTURE ENGINEERING	3	5
40	ENGCE042	STRUCTURAL MECHANICS 2	2	3
41	ENGCE043	ELECTRICAL ENGINEERING AND POWER SUPPLY	3	5
42	ENGCE044	ENGINEERING COMMUNICATIONS AND HEATING SYSTEM	3	5
43	ENGCE045	WATER AND WASTEWATER ENGINEERING	3	5

Total			19	31
Year Four				
Seventh semester				
Compulsory modules				
44	ENGCE046	CONSTRUCTION ECONOMICS AND ESTIMATING	2	3
45	ENGCE047	ROAD AND TRAFFIC ENGINEERING	3	5
46	ENGCE048	CONSTRUCTION OF HIGH-RISE BUILDING.	2	3
47	ENGCE049	CONSTRUCTION MANAGEMENT	2	3
48	ENGCE050	SEISMIC RESISTANCE OF BUILDINGS AND STRUCTURES	2	3
49	ENGCE051	UNDERGROUND STRUCTURES AND TUNNELS.	3	5
50	ENGCE052	CONSTRUCTION PROJECT	2	3
51	ENGCE053	CONSTRUCTION SAFETY AND LABOR PROTECTION	2	3
Total			18	28
Eighth semester				
Compulsory modules				
52	ENGCE054	UNDERGRADUATE PRACTICE	6	18
53	ENGCE055	GRADUATION RESEARCH (PROJECT)	2	9
Total			8	27
Total for the 4 years			152	254

6. Award calculation.

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 Yeosu Technical Institute in Tashkent regulations for taught modular programs as outlined in YTIT'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 Yeosu Technical Institute 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.

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	Good
C+	2.5	75-79		
C	2.0	70-74		
D+	1.5	65-69	D	Satisfactorily
D	1.0	60-64		
F	0.0	0-59	FX, F	Unsatisfactory
FA	0.0	Fail for abs.		

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 knows 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.