



VILNIUS COLLEGE OF TECHNOLOGIES AND DESIGN

## Civil Engineering

Faculty: Civil Engineering Faculty

State Code: 6531EX018

The Scope of the Study Programme: 180 credits

Duration of Studies: 3 years

### ***General Description:***

Objective(s) of a study programme:

To prepare competitive, well-qualified construction engineering specialists having knowledge, abilities and skills to work in the civil engineering field, being able to operate in competitive working conditions and solve professional and society problems.

Learning outcomes:

#### *Knowledge and its application:*

Will know general regularities and laws of natural sciences and mathematics in order to understand the fundamental basics of civil engineering study field. Will know the most important concepts of civil engineering study field and will be able to understand their content. Will have the main knowledge in civil engineering that are important while working practically. Will know the context of problems and their solutions of adjacent study fields.

#### *Competences to carry out research:*

Will be able to find proper professional information using data bases and other scientific and engineering information resources. Will be able to carry out proper applied research for solving engineering tasks, process their results and present practical conclusions of these results. Will have skills to operate the equipment used in the field of Civil Engineering.

#### *Special skills:*

Will be able to apply engineering knowledge in the field of Civil engineering when formulating and carrying out the design tasks in accordance with the design methodology and the laid down requirements. Will be able to apply their knowledge while analysing Civil engineering tasks and issues, to creatively apply appropriate methods and equipment. Will be able to select engineering solutions, as well as means and equipment needed to implement them. Will be able to combine theoretical and applied knowledge while solving issues in civil engineering sector. Will understand ethical, environmental and commercial considerations of engineering activity. Will understand

operational principles of engineering activity, will know the main requirements for human safety and fire safety.

*Social skills:*

Will be able to understand the impact of engineering solutions on society and environment, comply with professional ethics and standards of engineering. Will be able to solve engineering challenges in a team, communicate with colleagues and experts in related fields, the general public; be a leader; defend their position argumentatively.

*Personal skills:*

Will be able to deal with engineering tasks individually and will understand their impact on society and environment.

Will be able to plan their job and time, will obey the norms of professional ethics and engineering activities, will understand responsibility for the results of engineering activities.

Will comprehend the importance of individual lifelong learning and will prepare for it.

Activities of teaching and learning:

Lectures, consultations, practical tasks and course papers, individual work, practices of professional activities. Students accomplish practical tasks individually or in groups.

Methods of assessment of learning achievements:

The student's knowledge, skills and abilities acquired while studying subjects of a study programme are assessed after completing of individual assignments performed during the semester and exam session. The achieved learning outcomes after completion of subject/module studies are assessed attributing them to the levels of achievement: excellent, typical and threshold.

***Framework:***

Study subjects (modules), practical training:

*General College Study Subjects:*

Foreign Language, Contemporary Lithuanian, Environmental and Human Safety and alternatively optional subjects (Sociology, Psychology, Philosophy – selected one of them).

*Subjects of the Study Field:*

Mathematics, Applied Physics, Chemistry, Information Technologies, Construction Materials, Construction Drawing, Geodesy, Applied Mechanics, Theory of Economics, Structures of Buildings, Engineering Systems, History of Architecture, Law, Economics of Enterprises, Applied Research, Fundamentals of Structural Design, Technology of Construction Works, Rationing and Estimates, Geotechnics, Repair and Renovation Technologies, Organization of Construction Works.

*Special Study Subjects:*

Applied Research, optional subjects by choice of students (Business English, Social Project, Personnel Management, Document Management, Town Planning, Professional Ethics – selected three of them).

*Practices:*

Practice of Construction, Industrial Practice, Final Practice.

***Completion of Studies:***

Studies are completed by defending the Final work individually prepared by a student.

***Distinctive features of a study programme:***

The programme focuses on application of technological processes in construction sector. Student has knowledge, necessary for preparation of structures design, organization and implementation of new structures building, reconstruction, maintenance and supervision of existing structures, execution of structures technical supervision.

***Access to professional activity or further study:***

Graduate can work in state and private construction sector enterprises, to perform technical supervision of structures under construction.

Graduate can continue his/her studies having chosen university study programmes in the field of Civil Engineering.