

BACHELOR IN "CIVIL ENGINEERING"

STUDY PROGRAMME OBJECTIVES

The Bachelor's study programme in "Civil Engineering" aims to prepare students for the professional implementation of engineering tasks, equipping them with comprehensive knowledge and practical skills in the design and implementation of structures, objects, and engineering works. Students will develop competencies to address technical and scientific challenges in various construction projects, in collaboration with specialists and colleagues from interdisciplinary fields.

LEARNING OUTCOMES

At the end of the Bachelor's program, the student will be able to:

- Identify and analyse technical problems related to the construction of structures, objects, and engineering works, and propose effective solutions for their implementation.
- Design and supervise the implementation of construction projects by adhering to national and international technical standards and legal regulations.
- Prepare and develop the "Calendar Plan" for works and manage project's documentation, ensuring that the project is carried out according to planning and in compliance with construction site requirements.
- Apply advanced methods of structural analysis and design to ensure the stability, strength, and safety of construction structures.
- Develop skills to evaluate the environmental impact of projects, to implement solutions that lower the negative effects of construction processes on the environment, using sustainable practices and new technologies.
- Utilize specialized engineering software and applications for structures modelling and simulation, as well as for managing projects and their resources.
- Coordinate and collaborate with various stakeholders in the construction process, including designers, subcontractors, consultants, and other relevant participants, to ensure the project's goals are met.
- Evaluate and select the most appropriate construction materials for each project, based on their performance, cost, and sustainability.
- Supervise the implementation of modern construction technologies, including digital approaches and sustainable engineering practices to increase project efficiency and quality.
- Apply managerial and leadership skills to organize and supervise construction teams, effectively coordinating resources and processes on the construction site.
- Enforce safety rules and standards on-site to protect workers and minimize risks during construction activities.

JOB OPPORTUNITIES

Graduates of the Bachelor's program in Civil Engineering can be employed as follows:

- Project engineers in construction companies, real estate developers, and construction agencies.
- Construction supervisors in construction firms, consulting companies in construction, and supervisory agencies.
- Materials engineers in manufacturers of construction materials, construction technology companies, and testing laboratories.

- Health and safety engineers in companies/institutions that provide safety consultancy and construction companies.
- Construction inspector in overseeing and controlling the quality and safety of construction projects, ensuring they meet legal and technical standards.
- Structural design assistants in engineering firms, design studios, and structural consulting companies.
- Road and infrastructure engineers in civil engineering companies, local transportation authorities, and government agencies.
- Civil construction specialists in construction companies, renovation firms, and public administration institutions.



BACHELOR IN "CIVIL ENGINEERING" 180 ECTS

No.	Year	Sem	Course Name	ECTS
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GENERAL KNOWLEDGE AND METHODOLOGICAL PREPARATION

A - GENERAL COURSES/ 15-20%/32 ECTS

1	I	2	Academic Writing and Research Methods	8
2	I	1	Algebra and Geometry	6
3	I	1	Mathematics Analysis 1	6
4	I	2	Mathematics Analysis 2	6
5	II	1	Introduction to Economics	6

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II. PERGATITJE PER DISIPLINEN SHKENCORE

B - LËNDË KARAKTERIZUESE TE PROGRAMIT 50-55%/99 ECTS

1	I	1	General and Inorganic Chemistry	6
2	I	1	Physics 1	5
3	II	2	Physics 2	6
4	I	2	Introduction to Probability	6
5	II	2	Rational Mechanics	6
6	I	1	Science and Technology of Construction Materials	6
7	II	2	Environmental Technical Physics	6
8	II	2	Topography	5
9	II	2	Structural Mechanics 1	5
10	III	1	Structural Mechanics 2	5
11	III	1	Geology	6
12	III	1	Reinforced Concrete Constructions	8
13	III	1	Road, Railway and Airport Construction	6
14	III	1	Steel and Wood Structures	6
15	III	2	Construction Site, Technology and Safety	10
16	III	2	Geotechnics (Soil)	6

98

III - NENDISIPLINA, ORIENTIME DHE GRUP- LENDE ME ZGJEDHJE

C - LËNDË NDËRDISIPLINORE / INTEGRUESE /12-15%/22 ECTS

1	II	1	Algorithmics and Introduction to Programming	6
2	II	2	Basics of Architectural Design	6
3	I	2	Descriptive Geometry 1	5
4	II	1	Cad and Graphics 1	6
5	II	2	Hydrotechnical Plants of Buildings	5
6	II/III		Honors course	6

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D - LËNDË PLOTËSUESE 10-15%/21 ECTS

1	I	2	English Language B1	5
2	I	1	Basics of Informatics	4
3	II	1	Project Design and Management	6
4	III	2	Professional Practice	6

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E - DETYRIME PËRMBYLLËSE/3-5% /7 ECTS

1	III	2	Diploma Thesis or Final Comprehensive Exam	7
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Total 180