

BACHELOR IN “CIVIL ENGINEERING”

STUDY PROGRAMME OBJECTIVES

The Bachelor study program in Civil Engineering aims to prepare the student to become proficient to act as a professional in solving all the tasks that may arise during the exercise of his activity as an Executive Engineer, Designer, in structures, objects, works and scientific-technical problems of the level of medium difficulty, in all possible positions offered, in continuous cooperation with other colleagues or collaborators.

By the end of the programme, it is expected the student will have the ability to plan, organize, supervise and coordinate the actors and elements needed in the construction process such as developers, subcontractors, consultants, designers, implementers, finances, materials, etc. in order to take the relevant role from the first stages or, further, in the coordination of all construction and implementation processes until the relevant conclusions and the correct follow-up of their implementation.

LEARNING OUTCOMES

At the end of this Study Program, Bachelor in “Civil Engineering”, students will be professionally trained as Civil Engineers gaining the necessary knowledge and competencies on construction and the construction industry, on the materials used in the realization of structures, objects and works of civil engineering, as well as on the different technologies and the ways of operation of each of them. Students will be able to:

- Identify and solve various problems encountered during concrete work in construction and implementation of structures, facilities or works.
- Identify factors and impact they have on the process construction processes or cycles.
- Actively participate in the design studio or construction site, take over and realize:
 - Decomposition of construction projects, in its various phases.
 - Detailed extraction of the necessary materials, type, quantity and relevant characteristics for each of them, in the full realization of the work in progress.
 - Drafting and following the "Calendar Plan" of the development of works in the relevant construction site or facility.
 - Compilation and maintenance of the "Booklet of works" in accordance with the requirements of the project and the reality of implementation of works on site, etc.

CURRICULUM

BACHELOR IN "CIVIL ENGINEERING" 182 ECTS				
No.	Year	Sem	Name of the course	ECTS
A - GENERAL COURSES/ 5-20%/32 ECTS				
1	I	1	Academic Writing	4
2	I	2	Research Methods	4
3	I	1	Introduction to Philosophy	6
4	I	1	Mathematics 1	6
5	I	2	Mathematics 2	6
6	I	1	Introduction to Economics	6



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No.	Year	Sem	Name of the course	ECTS
				32
B - SPECIALIZATION COURSES / 50-55%/99 ECTS				
1	I	1	General Inorganic Chemistry	6
2	I	2	Physics 1	6
3	II	1	Physics 2	6
4	II	1	Differential Equations and Probability Theory	6
5	II	1	Algorithmics and Introduction to Programming	6
6	II	1	Rational Mechanics	6
7	II	1	Construction Materials	6
8	II	2	Technology of Constructions	5
9	II	2	Environmental Technical Physics	6
10	II	2	Structural Mechanics 1	6
11	III	1	Structural Mechanics 2	6
12	III	1	Geology	5
13	III	1	Reinforced Concrete Structures	6
14	III	1	Road Construction and Environmental Planning	6
15	III	1	Steel and Wood Construction	6
16	III	2	Steel and Timber Structures	5
17	III	2	Geotechnics	6
				99
C - INTERDISCIPLINARY AND INTEGRATIVE COURSES /12-15%/25 ECTS				
1	I	2	Basics of Architectural Design	6
2	I	2	Descriptive Geometry 1	4
3	II	1	Cad and Graphics 1	4
4	II	2	Basics of Hydraulics and Hydrotechnics	6
5	II	2	Topography	5
6	II/III	1-2	Honors course	6
				25
D -ADDITIONAL COURSES/ 10-15%/19 ECTS				
1	I	2	English B1	5
2	I	1	Basics of Informatics	4
3	III	2	Project Design and Management	4
4	III	2	Professional Practice	6
				19
E - FINAL OBLIGATIONS /3-5% /7 ECTS				
1	III	2	Diploma Thesis or Final Comprehensive Exam	7