

BACHELOR "INDUSTRIAL ENGINEERING"
LEARNING OUTCOMES

At the end of this study programme graduates will be able to:

- Identify problems encountered during industry work and their analysis.
- Analyse and make decisions about the industrial plants.
- Count the thermodynamic indicators of industrial systems and analyse them
- Use programs for design.

PROFILE: ELECTRICAL ENGINEERING

- Analyse and make decisions for converters and electrical machines.
- Recognize and control the instruments of electrical appliances and appliances.
- Assess the necessity and usefulness of materials used in the field of electrical engineering and their structure.

PROFILE: MECHANICAL ENGINEERING:

- Calculate the main indicators of transport systems and analyse these values.
- Work with CNC systems.

CURRICULUM

BACHELOR "INDUSTRIAL ENGINEERING" 180 ECTS				
No.	Year	Sem	Course name	ECTS
GENERAL KNOWLEDGE AND METHODOLOGICAL PREPARATION				
A - GENERAL COURSES/ 15-20%/32 ECTS				
1	I	1	Introduction to Philosophy	6
2	I	1	Academic Writing	4
3	I	2	Research Methods	4
4	I	1	Introduction to Economics	6
5	I	1	Mathematics 1	6
6	I	2	Mathematics 2	6
				32
PREPARATION FOR THE SCIENTIFIC DISCIPLINE				
B - SPECIALIZATION COURSES/ 50-55%/98 ECTS				
1	II	1	Algorithmics and Introduction to Programming	6
2	II	1	Differential Equations and Probability Theory	6
3	I	2	Descriptive Geometry 1	4
4	II	2	Structural Mechanics	6

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No.	Year	Sem	Course name	ECTS
5	I	2	Technical Drawing and CAD	4
6	II	1	Rational Mechanics	6
7	I	1	General Inorganic Chemistry	6
8	I	2	Physics 1	6
9	II	1	Physics 2	6
10	II	2	Environmental Technical physics	6
11	II	2	Materials Science and Technology	6
12	III	1	Basics of Applied Mechanics and Machine Elements	6
13	III	2	Introduction to Management	6
14	II	2	Fluid Mechanics	6
15	III	1	Industrial Plants	6
16	II	1	Basics of Electronics and Automation	6
17	III	1	Transport Systems, Infrastructure and Security	6
				98
SUB-DISCIPLINE AND ELECTIVE COURSES				
C - INTERDISCIPLINARY AND INTEGRATIVE COURSES/ 12% - 15%/ 24 ECTS				
PROFILE: ELECTRICAL ENGINEERING				
1	II	2	Converters and Electric Machines	6
2	III	1	Electrical Systems	6
3	III	2	Electrical and Electronic Measurements	6
4	III	1	Electrical Installations and Safety	6
5			Honors course	6
PROFILE: MECHANICAL ENGINEERING				
1	II	2	Mechanical Technology of CNC (Computer Numerical Control)	6
2	III	1	Machines and Mechanical Systems	6
3	III	1	Mechanical Measurements	6
4	III	2	Mechanical Properties of Materials	6
5			Honors course	6
				24
D - ADDITIONAL COURSES /10% - 15%/ 18 ECTS				
1	I	2	English Language	5
2	I	1	Basics of Informatics	4
3	III	2	Project Design and Management	4

BACHELOR "INDUSTRIAL ENGINEERING" 180 ECTS

No.	Year	Sem	Course name	ECTS
4	III	2	Professional Practice/Internship	6
				19
E - FINAL OBLIGATIONS / 3% - 5% / 7 ECTS				
1	III	2	Diploma Thesis/Final Comprehensive Exam	7
				180