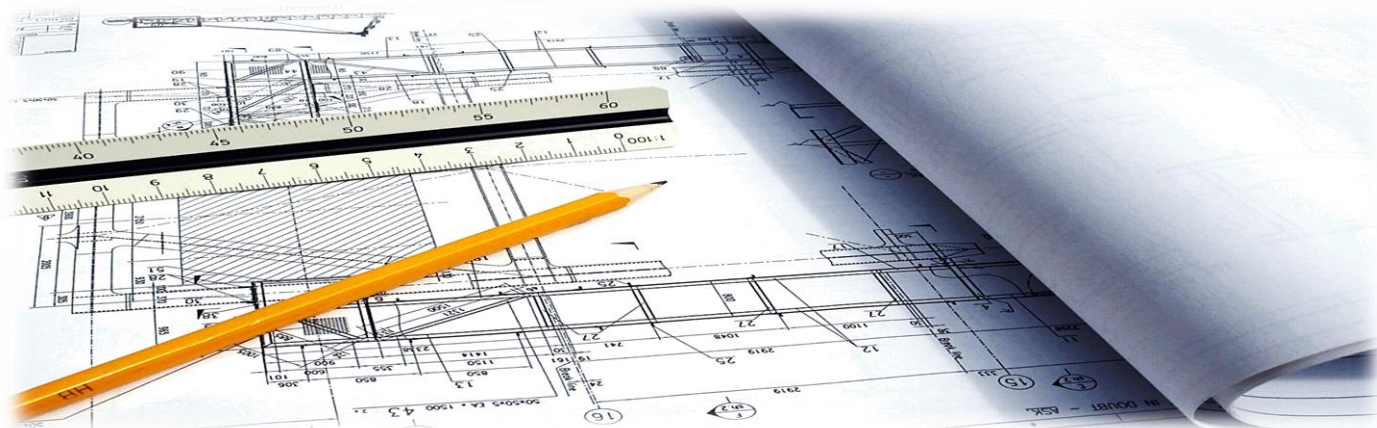


Bachelor's Degree in Industrial Engineering



This degree trains professionals with ability to design, build, maintain and manage industrial equipment and installations. Its field of work includes both traditional and future-oriented areas: energy, environment, product design, electricity, construction and industrial, mechanical, production, industrial organization, electronics, automation, materials, automotive and transportation.

Distribution of credits

Basic courses	Compulsory courses	Optional courses	Bachelor Thesis	Total ECTS Credits
60.00	148.50	19.50	12	240.00

First year

Code	Course Name	Term	ECTS Credits
11406	Industrial Business and Economy	A	6
11402	Physics I	A	9
11400	Mathematics I	A	9
11404	Computer Science	A	6
11403	Chemistry	B	6
11401	Physics II	B	6
11405	Technical Drawing	B	6
11398	Statistics	B	6
11399	Mathematics II	B	6
Total			60

Second year

Code	Course Name	Term	ECTS Credits
11411	Materials Science	A	4.5
11415	Thermodynamics	A	4.5
11417	Fundamentals of Business Organization	A	4.5
11435	Mathematics III	A	6
11436	Physics III	A	6
	Language	A	6
11409	Circuits analysis	B	4.5
11412	Elasticity and Strenght of Materials	B	4.5
11410	Theory of machines	B	4.5
11413	Heat Transfer	B	4.5
11434	Mathematical Methods	B	6
11414	Fluid Mechanics	B	4.5
Total			60

Third year

Code	Course Name	Term	ECTS Credits
11407	Control systems	A	4.5
11408	Electronic systems	A	4.5
11416	Production and Manufacturing Systems	A	4.5
11418	Environmental Technology	A	4.5
11423	Machine technology	A	6
11426	Structures	A	6
11420	Thermal machines	B	4.5
11422	Materials technology	B	4.5
11429	Electrical machines	B	4.5
11430	Control and automation technology	B	6
11431	Electronic technology	B	6
11433	Operational research	B	4.5
		Total	60

Fourth year (Compulsory)

Code	Course Name	Term	ECTS Credits
11419	Projects	A	6
11421	Hydraulic Machines	A	4.5
11425	Construction Technology	A	4.5
11424	Graphic engineering	A	4.5
11428	Electric technology	A	6
11427	Energy technology	A	4.5
11432	Industrial informatic technology	B	4.5
	Optional Courses (to choose from the list below)	B	13.5
11467	Bachelor Thesis	B	12
		Total	60

Fourth year (Optional)

Code	Course Name	Term	ECTS Credits
13442	Basic CAD in building engineering	B	4.5
13242	CAD for industrial structures design	B	4.5
13437	Development of applications for mobile devices	B	4.5
13238	Computer-aided mechanical design	B	4.5
13233	Ethics and social entrepreneurship responsibilities	B	4.5
13441	Executive abilities for engineers	B	4.5
13438	3D printing and digital fabrication	B	4.5
13232	Innovation and Entrepreneurship	B	4.5
13235	Internet and network services	B	4.5
13239	Introduction to renewable energies	B	4.5
13237	Control system laboratory	B	4.5
13240	Computational Fluid Mechanics	B	4.5
13236	Thermal engines for automotive applications	B	4.5
13444	Participatory decision making and conflict resolution	B	4.5
13445	Practical cases in strategic management and entrepreneurship	B	4.5
13234	Work risks prevention	B	4.5
13440	Technical integration of automation and control equipment for installations and electrical machines	B	4.5
13751	Physical concepts in historical and cultural perspective	B	4,5
13752	Applied Photochemistry	B	4,5
13753	Organizational performance measurement systems	B	4,5
13754	Programming embedded systems in C	B	4,5
13755	Life cycle assessment	B	4,5