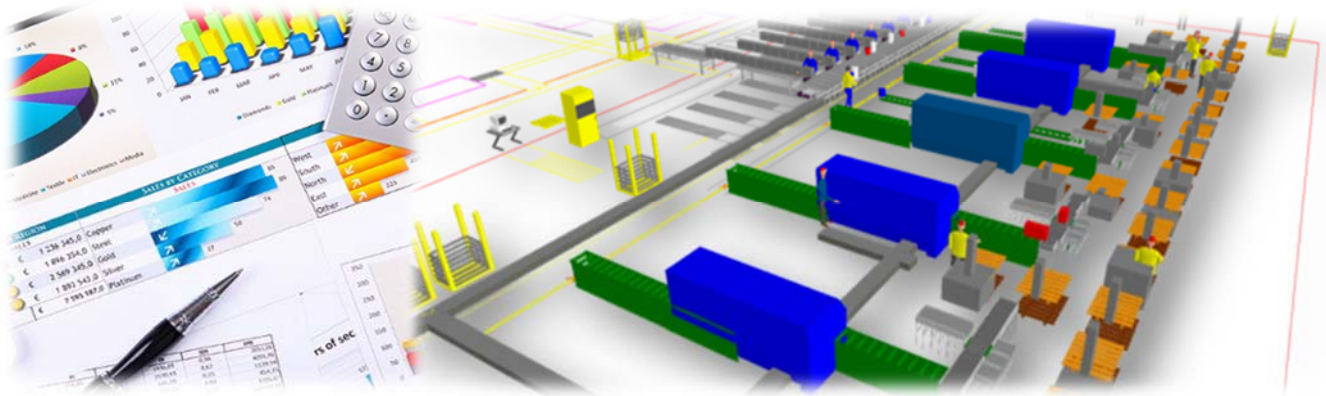


Bachelor's Degree in Industrial Organization Engineering



The overall objective of this Degree is to train graduates with a solid science and technology base to manage and lead either industrial or service, either public or private companies in all their functional areas.

Graduates will be able to identify and solve problems, and optimize processes within an organization, making it more efficient and eliminating any resource waste. They will also be prepared to assess which operations management tools are more suitable for the strategic priorities of the company, key indicators, available resources, benefits and expected costs, industry conditions, technological limitations and corporate social responsibility.

With all this, they will propose improvements, collaborate in the implementation and monitoring of the proposed actions and play an important role in leading and motivating people who must carry them out.

Moreover, it aims to train highly qualified Graduates in Transversal Competences as: Critical thinking, Innovation, creativity and entrepreneurship, Effective communication, Teamwork and leadership, Planning and time management, Ethical and professional responsibility and Lifelong learning.

Distribution of credits

Basic courses	Compulsory courses	Optional courses	Bachelor Thesis	Total ECTS Credits
60.00	121.50	46.50	12	240.00

First year*

Code	Course Name	Term	ECTS Credits
11475	Technical drawing	A	6
11472	Physics I	A	9
11470	Mathematics I	A	9
11473	Chemistry	A	6
11471	Physics II	B	6
11476	Industrial Business and Economy	B	6
11469	Statistics	B	6
11474	Computer Science	B	6
11468	Mathematics II	B	6
Total			60

Second year*

Code	Course Name	Term	ECTS Credits
11481	Materials Science	A	4.5
11492	Work study	A	4.5
11486	Fundamentals of Management	A	4.5
11477	Automatic Control systems	A	4.5
11488	Production and Manufacturing Systems	A	4.5
11487	Environmental Technology	A	4.5
11485	Thermodynamics	A	4.5
11491	Production and Logistic System Design	B	6
11482	Material elasticity and resistance	B	4.5
11483	Fluid Mechanics	B	4.5
11479	Circuits analysis	B	4.5
11480	Machine technology	B	4.5
11484	Heat transmission	B	4.5
		Total	60

Third year*

Code	Course Name	Term	ECTS Credits
11478	Electronic systems	A	4.5
11498	Human Resources in industrial companies	A	4.5
11494	Production and stock planning	A	4.5
11499	Accounting and financial analysis for industrial organization	A	4.5
11497	Analysis and marketing of technology-based products and services	A	4.5
	Language	A	4.5
11493	Production and operation programming and control	B	4.5
11495	Cost analysis and selection of industrial investments	B	4.5
11496	Competitiveness and innovation in business	B	4.5
11500	Integrated information systems for industrial organization	B	6
11501	Statistical quality control	B	4.5
11490	Quantitative methods for industrial organization	T	9
		Total	60

Fourth year* (Compulsory)

Code	Course Name	Term	ECTS Credits
	Language	A	6
11489	Projects	A	6
11537	Bachelor Thesis	B	12

Fourth year (Optional courses)

It is necessary to choose 2 of the following modules:

Module 1: Common courses Via Industrial Organization - 18 ECTS credits to be chosen from this module

Code	Course Name	Term	ECTS Credits
11505	Creation and managing of high performance teams	A	4.5
11507	Strategic management	A	4.5
11508	Total quality management	A	4.5
11506	Security and Labor Risk Prevention	A	4.5

Module 2: (Industrial Technologies 1) - 18 ECTS credits to be chosen from this module

Code	Course Name	Term	ECTS Credits
11529	Structures	A	6
11525	Engineering graphics	A	4.5
11524	Hydraulic machines	A	4.5
11527	Building technology	A	4.5
11528	Machine technology	A	6
11526	Electrical Technology	A	6

Module 3: (Industrial Technologies 2) - 18 ECTS credits to be chosen from this module

Code	Course Name	Term	ECTS Credits
11534	Energy Technology	A	6
11530	Control and automation technology	B	6
11536	Electrical Machines	B	4.5
11533	Electronic Technology	B	4.5
11535	Industrial Informatics Technology	B	4.5
11532	Materials Technology	B	4.5
11531	Thermal machines	B	4.5

Module 4: (Production and logistics) - 18 ECTS credits to be chosen from this module

Code	Course Name	Term	ECTS Credits
11509	Design and warehouse management	B	6
11511	Forward and reverse logistics distribution	B	6
11510	Maintenance of Production Systems	B	6

Module 5: (Integrated information and knowledge management systems) - 18 ECTS credits to be chosen from this module

Code	Course Name	Term	ECTS Credits
11515	Business process management. Implementation, development and simulation	B	6
11516	Information systems and knowledge management	B	6
11517	Integrated information systems in industrial enterprises	B	6

**Language of tuition will be Spanish*