Bachelor's Degree in Industrial Engineering

Introduction to the degree

The new Bachelor’s Degree in Industrial Technologies Engineering, together with the future Master’s Degree in Industrial Engineering, replaces the current Degree in Industrial Engineering. The former two are jointly equivalent to the latter.

This degree aims to provide future professionals with the ability to design, build, maintain and manage industrial equipment and facilities. Its field of work includes both traditional and future-oriented areas: energy, the environment, product design, electricity, industrial construction and facilities, mechanics, production, industrial organization, electronics, automatics, materials, cars and transport. Due to the wide knowledge of different industrial technologies that it affords, and to the high adaptability and versatility of its graduates once they enter the labour market, this degree provides students with the foundations for professional success.

International mobility

You can spend one semester abroad in one of the universities in more than 30 different countries in Europe and around the world which the School has signed exchange agreements with. You may be awarded a double degree thanks to the agreements signed within the framework of the TIME network (Top Industrial Managers for Europe) with some of Europe’s best engineering schools (Ecole Centrale Paris, TU München, ETH Zurich, Politecnico di Milano etc.)

Internships

You will have the opportunity to gain work experience in one of the many private and public companies, civil service departments, technical institutes, consultancies and engineering firms which the school has signed agreements with.

You can do this in any of the industrial technology fields of activity: automobiles, electricity, automation and robotics, plant, machinery, environment and renewable energy, installations, industrial design, construction and civil engineering, market research, food etc. In some cases, and in order to complete your studies, you will be able to work on your final degree project.

Continuation of studies

With this degree, you will be able to access to:

- MD in Industrial Engineering
- MD in Industrial Constructions and Installations
- MD in Advanced Engineering in Production, Logistics and Supply Chain Management
- MD in Energy Technologies for Sustainable Development
- MD in Automation and Industrial Computing
- MD in Maintenance Engineering
- MD in Mechanical Engineering
- others MD + levelling subjects

Professional opportunities

Your work will be linked to positions of responsibility in any company department. You will be able to work in the industrial sector in managerial and business management, product design, project execution and management, construction and industrial facilities, production, maintenance, engineering, quality control etc.

You can also work in the service sector, in construction and installation companies, engineering works, consultancies, surveys, marketing and business management, prevention of occupational hazards etc. You can work in the civil service, do research or teach (either in secondary schools or universities).

Study at the UPV

Enjoy our huge campuses with spaces designed for you such as the Student Recreation House.

You can do up to 70 sports in our facilities.

You will find many services at your disposal: language classes, discounts in public transport, counselling, employability support…

Spain’s best technological university according to the Shanghai ranking
Bachelor’s Degree in Industrial Engineering

Curriculum

Credits for obtaining the degree

<table>
<thead>
<tr>
<th>Basic courses</th>
<th>Compulsory</th>
<th>Elective</th>
<th>Internship</th>
<th>T.F.G.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.00</td>
<td>148.50</td>
<td>19.50</td>
<td>0.00</td>
<td>12.00</td>
<td>240.00</td>
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The subjects that you will be able to take

**Basic courses**
- Chemistry
- Computer Science
- Industrial Business and Economy
- Mathematics I
- Mathematics II
- Physics I
- Physics II
- Statistics
- Technical Drawing

**Compulsory courses**
- Automatic Control Systems
- Circuit Analysis
- Construction Technology
- Control and Automation Technology
- Elasticity and Strength of Materials
- Electrical Machines
- Electrical Technology
- Electronic Systems
- Electronic Technology
- Energy Technology
- Engineering Graphics
- Environmental Technology
- Fluid Mechanics
- Fundamentals of Business Organization
- Heat Transfer
- Hydraulic Machines
- Industrial Informatics Technology
- Machine Design Technology
- Material Science
- Materials Technology
- Mathematical Methods
- Mathematics III
- Operational Research
- Physics III
- Production and Manufacturing Systems
- Projects
- Structures
- Theory of Machines
- Thermal Machines
- Thermodynamics

**Elective courses**
- Applied Photochemistry
- Automation and Control Laboratory
- Basic CAD in Building Engineering
- CAD for Industrial Structures Design
- Computational Fluid Mechanics (CFD)
- Computer-Aided Mechanical Design
- Development of Applications for Mobile Devices
- English - B2 - B2-A
- Ethics in Professions and Corporate Social Responsibility
- German - A1 - A2 - B1 - B2
- Innovation and Entrepreneurship
- Internet and Network Services
- Introduction to Renewable Energies
- Italian - A1
- Life Cycle Assessment
- Management Skills for Engineers
- Occupational Risk Prevention
- Organisational Performance Measurement Systems
- Participatory Decision Making and Conflict Resolution
- Physical Concepts in Historical and Cultural Perspective
- Practical Cases in Strategic Management and Entrepreneurship
- Product Design
- Programming Embedded Systems in C
- Technical Integration of Automation and Control Equipment for Installations and Electrical Machines
- Thermal Engines for Automotive Applications
- Valencià Tècnic - C1 - C2
- 3D Printing and Digital Fabrication

Internationally accredited bachelor’s degree (EUR-ACE – ABET)