Bachelor's Degree in Chemical Engineering

Degree characteristics

This degree aims to train future professionals to be able to create, calculate, build, start and manage equipment and facilities in the chemical industry and all industries where chemical processes are carried out where matter undergoes changes in its composition, state or energy content.

The study plan includes optional subjects, which allow students to choose between three different routes: The Industrial Chemistry route is offered at the Higher Polytechnic School of Alcoi. The Chemical and Textile Industrial Processes route, which is also offered at the Higher Polytechnic School of Alcoi. And the third route, offered at the Higher School of Industrial Engineering with some of the best engineering schools in Europe (TU Delft, ENS de Chimie de Rennes, TU Berlin, Politecnico di Milano etc).

Studying at another university will help you complete your studies, give you a very positive personal experience, experiencing other cultures and becoming fluent in other languages. You can also spend one semester in a different university in Spain.

Internships

You will have the opportunity to gain work experience in one of the many private and public companies, public bodies, technological institutes, consultancies and engineering firms with which the EPSA and the ETSII have signed agreements. You will be able to work in any of the fields related to chemical engineering such as: food, energy, fuel, wood and paper, pharmacy, biotechnology, environment, agrifood, materials (plastic and rubber), cosmetics, recycling, etc. In some cases, in addition to furthering your academic training, you can also work on your final degree project.

Continuation of studies

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

- MD in Chemical Engineering
- MD in Industrial Engineering
- others MD + levelling subjects

Professional opportunities

This degree enables you to work in the profession of industrial engineering. Within the field of chemical engineering, you can work in manufacturing or in consulting and design companies. You can reach positions of responsibility in production, quality and environment departments. You can also be in charge of the use of facilities related to industrial chemistry.

In addition, you can also consult by giving technical, legal and commercial advisory services, work as a freelancer (giving expert reports and opinions and developing projects in the field of industrial chemistry), work in the civil service, or work as a teacher (at secondary school or university level).

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…
Bachelor's Degree in Chemical Engineering

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>
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<tbody>
<tr>
<td>64.50</td>
<td>132.00</td>
<td>31.50</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**
- Advanced Physics
- Chemistry
- Computer Science
- Industrial Business and Economy
- Mathematics I
- Mathematics II
- Physical Chemistry
- Physics
- Statistics
- Technical Drawing

**Compulsory courses**
- Analysis and Simulation of Chemical Processes
- Bioprocess Technology
- Business Organisation and Production Systems
- Chemical Kinetics and Catalysis
- Chemical Reactors
- Chemical Thermodynamics and Heat Transfer
- Computational Methods in Chemical Engineering
- Control and Instrumentation of Chemical Processes I
- Electric and Electronic Systems
- Engineering Projects
- Environmental Technology
- Experimentation in Chemical Engineering I
- Experimentation in Chemical Engineering II
- Experimentation in Chemical Engineering III
- Extension of Materials Science
- Fluid Mechanics
- Fundamentals of Chemical Engineering
- Fundamentals of Machines and Strength of Materials
- Industrial Processes in Chemical Engineering
- Laboratory in Chemical Analyses
- Mass Transfer
- Materials Science
- Organic Chemistry
- Process Control and Instrumentation II
- Separation Processes
- Thermodynamics

**Elective courses**
- German II
- Análisis Determinación Estructural En Química Orgánica
- Applied Photochemistry
- Building Material Manufacturing Processes
- Computer Aided Chemical Plant Design
- Electrochemical Process Engineering
- Energy Sources
- English B2-3 - B2-4
- English I
- Fluid Machines
- French I - II
- German - A1 - A2 - B1 - B2
- German Language I
- Industrial Buildings and Architecture
- Industrial Heat and Refrigeration
- Industrial Safety
- Integrated Laboratory of Chemical Engineering
- Integrated Laboratory of Chemistry
- Integrated Laboratory of Engineering Projects
- Integrated Laboratory of Food Industry Operations
- Integrated Laboratory of Polymers and Biomaterials
- Italian - A1
- Language 1
- Nuclear Chemical Technology
- Optimizing Energy Efficiency
- Pollution Control in Industry
- Scientific and Technical French - A2 - B1
- Scientific and Technical Valencian - C2
- Technical Valencian for Engineering - C1
- Technical Valencian I - II
- Unitary Processes and Operations in the Food Industry
- Valencia Tècnic - C1 - C2

Internationally accredited bachelor's degree (EUR-ACE)