

Chemical Engineering

Chemical Engineer – 6 years

Objective

Graduates are qualified to design the systems and equipment necessary to make certain products, analysing the resources available and choosing among different series of processes, the alternatives that work best to achieve them.

Contents

The course of studies is organised in a Basic Cycle made up of fundamental subjects and a Superior Cycle in which scientific and technological aspects connected to Chemical Engineering are studied.

The training includes basic scientific subjects (mathematics, Physics, chemistry and computer sciences) and engineering sciences, placing special emphasis on the fundamental principles of Chemistry.

Job opportunities

Chemical Sciences undergraduates are in charge of defining the characteristics of desired products. Chemical Engineers are the ones who design the necessary systems and equipment to achieve those products.

The process for achieving products provides Engineers with various alternatives – tightly linked to the national development- that transcends each particular process, for instance: is it necessary to obtain the product with a big investment in equipment and automatic instruments and little labour force? Or, on the contrary, with little automation and a higher investment in labour force?; Do we need to import the necessary elements and follow processes which are successful in other countries or develop technologies adapted to national needs?

The Chemical Engineering degree allows graduates to: study, plan, install, exploit, administrate, advice, inspect and run chemical industries where unitary operations and service installations are investigated; and installations where unitary operations and equipment, machinery and devices for chemical industries intervene.

Carry out basic and applied research tasks; technical, economic and product analyses and intervene in legal engineering issues.

Graduates can teach basic technical and scientific knowledge connected to the contents in the course of studies.

Chemical Engineers can work in:

- Prospecting, extraction, transportation and distribution of oil and gas.
- Conventional and non-conventional processes of energy generation.
- Prevention and control of environmental pollution
- Food, biochemical, service and make-up industries.