▪ ▪ ▪ Outstanding features

The master's degree is developed through a methodology based on **20-20-20 philosophy**:

- ✓ 20% of **practical training** (computer science, laboratory and pilot plant)
- ✓ 20% of **lectures in English** (seminars and complete courses) – 80% Spanish
- ✓ 20% of **external teaching staff** from Companies and Research Centers

▪ ▪ ▪ Access to the master

Graduates and Engineers

Without additional leveling courses:

- Bachelor in Chemical Engineering

Additional courses required:

- Others Engineers
- Graduates in Science

(Contact the Master Coordinator)

Department of Chemical and Environmental Engineering

The Master's Degree in Chemical Engineering from the University of Oviedo is an **official face-to-face Master's Degree** of 90 ECTS (one year and a half) linked to the **Chemical Engineer profession**

(BOE 2009-12977)

CONTACT INFORMATION

Information and registration:

International Postgraduate Center
Universidad de Oviedo
Edificio Histórico, ☎ (+34) 985 10 49 17
Plaza del Riego, Oviedo (ASTURIAS)

Teaching Center:

Faculty of Chemistry (Campus del Cristo)
Julián Clavería 8, Oviedo (ASTURIAS)

Master's Coordinator:

Fernando Díez

☎ (+34) 985 10 35 08

fds@uniovi.es

http://iqtma.quimica.uniovi.es/masteriq/

First year: 60 ECTS

- Courses: Mon-Fr 15:00-20:00

Second year: 30 ECTS

(1 semester)

- Internship
- Master's Thesis

MASTER'S DEGREE IN CHEMICAL ENGINEERING

90 ECTS

FACULTY OF CHEMISTRY

University of Oviedo

Objectives

Acquire advanced skills in the professional field of the **Chemical Engineer**:

- ✓ Conceive, design and optimize processes, equipment, facilities and services using safety, quality, economy and environmental sustainability criteria.
- ✓ Supervise and manage teams, projects, facilities and companies in a national and international context.
- ✓ Research, analyze and develop engineering solutions, integrating multidisciplinary knowledge and new technologies.

Professional outcomes

Direction and management, production, engineering, maintenance, safety, environment, quality, or research and development (R+D), in sectors such as:

- ❖ Chemical and petroleum industry
- ❖ Pharmaceutical, biotechnology and food
- ❖ Materials, energy and environmental
- ❖ Consulting, auditing and administration

Mandatory courses

Module: Process and Product Engineering

- Advanced transport phenomena
- Advanced separation processes
- Advanced chemical reactor design
- Chemical process simulation and optimization
- Applied chemical engineering computing
- Safety and risk analysis
- Analysis and synthesis of chemical processes
- Experimentation in Chemical Engineering

Module: Production and Sustainability Management and Optimization

- Production and plant management
- Integrated management of supplies and wastes
- Strategic direction of research and innovation

Elective courses

- Pollution prevention and sustainable technologies
- Advanced pollution control technologies
- Polymer processing operations
- Emulsion and suspension technology
- Solids and surface characterization
- Advanced methodologies in chemical analysis

Internship in Industry

Master's Thesis

Collaboration with Companies

- **20% of lectures** taught by professionals from Companies, Industries and Research Centers
- **Internship in Industry (12 ECTS,** compulsory**)** with the possibility of carrying out the **Master's Thesis (18 ECTS)** in national or foreign companies, industries or research centers (Erasmus agreements in Germany, Finland, Austria, Portugal, Poland).