

### General information on the bachelor's degree in Pharmacy

The bachelor's degree in Pharmacy is a five-year degree adapted to the requirements of the European Higher Education Area. It has a total study load of 300 credits across 10 semesters and complies with the provisions of EU Directive 2005/36/EC on the recognition of professional qualifications and Spanish Ministerial Order CIN 2137/2008, of 3 July, which lays down the requirements for the validation of official university degrees leading to regulated professional practice as a qualified pharmacist.

In the fourth year, students are now able to choose from one of two specialized curricular pathways to pursue their specific academic objectives.

- Industrial Pharmacy and Pharmaceutical Research
- Pharmaceutical Care and Clinical Analysis

Students must enrol in core and compulsory subjects with a total value of 258 credits, optional subjects compulsory for their chosen specialized pathway with a total value of 24 credits, and optional subjects with a total value of 18 credits.

Independently of the pathway they choose, all students must complete the subjects **Tutored Placement** and **Final Project**, and all successful graduates will be qualified for regulated professional practice.

### Curricular pathway for the bachelor's degree in Pharmacy (PHARMACY 09)

<b>First Year</b>	
<b>First semester</b>	<b>Second semester</b>
General and Inorganic Chemistry (6 cred.)	Organic Chemistry I (6 cred.)
Introduction to Laboratory Work (3 cred.)	Analytical Chemistry (6 cred.)
Cell Biology (3 cred.)	Pharmaceutical Botany (6 cred.)
Parasitology (6 cred.)	Biochemistry (6 cred.)
History of Pharmacy (3 cred.)	Introduction to Galenic Pharmacy (3 cred.)
Applied Mathematics and Biostatistics (6 cred.)	Physical Chemistry I (3 cred.)
Applied Physics in Pharmacy (3 cred.)	
<b>Second year</b>	
<b>First semester</b>	<b>Second semester</b>
Organic Chemistry II (6 cred.)	Pharmaceutical Chemistry I (6 cred.)
Physical Chemistry II (6 cred.)	Microbiology I (6 cred.)
Molecular Biology (6 cred.)	Instrumental Techniques (6 cred.)
Immunology (4.5 cred.)	Clinical Analysis and Laboratory Diagnosis (4.5 cred.)
Physiology and Pathophysiology I (6 cred.)	Physiology and Pathophysiology II (9 cred.)



<b>Third year</b>			
<b>First semester</b>		<b>Second semester</b>	
Microbiology II (6 cred.)		General Pharmacology (6 cred.)	
Pharmaceutical Chemistry II (6 cred.)		Galenic Pharmacy I (6 cred.)	
Physiology and Pathophysiology III (6 cred.)		Nutrition and Bromatology (9 cred.)	
Biopharmacy and Pharmacokinetics I (3 cred.)		Biopharmacy and Pharmacokinetics II (6 cred.)	
Plant Physiology (6 cred.)		Legislation and Deontology (3 cred.)	
Experimentation in Organic Chem. and Pharmaceutical Chem. (3 cred.)			
<b>Fourth year</b>			
<b>Pathway in Pharmaceutical Care and Clinical Analysis</b>		<b>Pathway in Industrial Pharmacy and Pharmaceutical Research</b>	
<b>First semester</b>	<b>Second semester</b>	<b>First semester</b>	<b>Second semester</b>
Pharmacology and Therapeutics I (6 cred.)	Pharmacology and Therapeutics II (6 cred.)	Pharmacology and Therapeutics I (6 cred.)	Pharmacology and Therapeutics II (6 cred.)
Pharmacognosy (6 cred.)	Public Health (6 cred.)	Pharmacognosy (6 cred.)	Public Health (6 cred.)
Galenic Pharmacy II (6 cred.)	Clinical Pharmacy and Pharmaceutical Care (6 cred.)	Galenic Pharmacy II (6 cred.)	Clinical Pharmacy and Pharmaceutical Care (6 cred.)
Clinical Microbiology and Parasitology (6 cred.)	Toxicology (6 cred.)	Analysis and Control of Medicines and Health Products (3 cred.)	Toxicology (6 cred.)
Management and Planning (6 cred.)	Phytotherapy (3 cred.)	Pharmaceutical Biotechnology: Research (3 cred.)	Galenic Pharmacy III and Quality Management (6 cred.)
	Clinical Biochemistry and Molecular Pathology (3 cred.)	Pharmaceutical Biotechnology: Industry (3 cred.)	
		Genetic Engineering (3 cred.)	
<b>Fifth year</b>			
<b>Pathway in Pharmaceutical Care and Clinical Analysis</b>		<b>Pathway in Industrial Pharmacy and Pharmaceutical Research</b>	
<b>First semester</b>	<b>Second semester</b>	<b>First semester</b>	<b>Second semester</b>
Environmental Health and Management (6 cred.)	Tutored Placement (24 cred.)	Environmental Health and Management (6 cred.)	Final Project (6 cred.)
Pharmaceutical Care (3 cred.)		Pharmacology and Toxicology in Research, Development and Innovation (6 cred.)	Tutored Placement (24 cred.)



Pharmaceutical Compounding (3 cred.)	Final Project (6 cred.)	Optional Subjects (18 cred.)	
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(Subjects in orange are optional subjects that are compulsory for the chosen pathway)

**Directed learning (6 cred.)** Free-elective subject

**In-Company Placement (12 cred.)** Free-elective subject

#### **Prerequisites for the subjects Tutored Placement and Final Project**

Students must have successfully completed the first three years of the bachelor's degree curriculum. Students must have passed at least 222 credits from the total study load of 300 credits required for the degree.

#### **Equivalence with 2002 curriculum**

All core and compulsory subjects completed during the pre-EHEA (*licenciatura*) degree have a direct equivalent in the bachelor's degree curriculum. Recognized free-elective subjects included in enrolment will be listed in the bachelor's degree transcript but will not count towards the overall credit load for the award of the degree.