

# Master's degree in Polymers and Bioplastics

The educational aims of the **master's degree in Polymers and Bioplastics** focus on providing specialised scientific and technological training in the field of polymers and bioplastics, including both industrial and research aspects. The training is designed to prepare students to join research, technological and industrial centres working on polymer materials. Aspects of manufacture, transformation and innovation are included.

## GENERAL DETAILS

### Duration and start date

1 academic year, 60 ECTS credits. Starting September

### Timetable and delivery

Mornings. Face-to-face

### Fees and grants

Approximate fees for the master's degree, **excluding other costs** (does not include non-teaching academic fees and issuing of the degree certificate):

€1,660 (€6,331 for non-EU residents).

[More information about fees and payment options](#)

[More information about grants and loans](#)

### Language of instruction

English

Information on [language use in the classroom and students' language rights](#).

### Location

[Barcelona East School of Engineering \(EEBE\)](#)

### Official degree

[Recorded in the Ministry of Education's degree register](#)

## ADMISSION

### General requirements

[Academic requirements for admission to master's degrees](#)

### Specific requirements

English Level B2 is a requirement that must be proved at the time of enrolment.

### Admission criteria

Applicants with the following degrees may apply for admission:

- Pre-EHEA or bachelor's degree in Chemical Engineering, Materials Engineering, Biomedical Engineering and Engineering Physics.
- Pre-EHEA or bachelor's degree in Chemistry, Biotechnology and Pharmacy.

### Bridging courses

Graduates with bachelor's degrees in Biology, Food Science and Technology, Food Engineering, Industrial Technologies or Environmental Engineering must complete 4 credits in Fundamentals of Polymers.

For candidates with other degrees, the academic committee of the master's degree will evaluate the need for bridging courses, up to a maximum of 12 ECTS credits, so as to bring candidates' capacities, knowledge and aptitudes up to speed.

The bridging courses required are subjects taught on the school's bachelor's degrees. The number of credits and

subjects to be taken vary depending on candidates' academic backgrounds as demonstrated by their particular academic record.

Although the bridging courses consist in passing bachelor's degree subjects, they are considered master's degree credits as regards public fees. Bridging courses may be taken at the same time as the master's degree.

## Places

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## Pre-enrolment

Pre-enrolment period open.

Expected deadline: 23/06/2025.

[How to pre-enrol](#)

## Enrolment

[How to enrol](#)

## Legalisation of foreign documents

All documents issued in non-EU countries must be [legalised and bear the corresponding apostille](#).

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## PROFESSIONAL OPPORTUNITIES

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### Professional opportunities

- Polymer development specialist: engaging in research and development of new polymer materials or the improvement of existing ones for specific applications (e.g. in the automotive, electronics, construction, biomedical industries).
- Plastics processing engineer: optimising manufacturing and transformation processes.
- Quality control specialist: ensuring that products comply with current standards and regulations.
- Polymers and bioplastics consultant: providing guidance to companies on material selection, manufacturing processes and sustainability strategies.
- Researcher in polymers and bioplastics at public research centres and corporate R&D departments.
- Plastic recycling technician: managing the collection, separation and recycling of plastic products.

### Competencies

#### Generic competencies

Generic competencies are the skills that graduates acquire regardless of the specific course or field of study. The generic competencies established by the UPC are capacity for innovation and entrepreneurship, sustainability and social commitment, knowledge of a foreign language (preferably English), teamwork and proper use of information resources.

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## ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

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### UPC school

[Barcelona East School of Engineering \(EEBE\)](#)

### Academic calendar

[General academic calendar for bachelor's, master's and doctoral degrees courses](#)

### Academic regulations

[Academic regulations for master's degree courses at the UPC](#)

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## CURRICULUM

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Subjects	ECTS credits	Type
FIRST SEMESTER		
Advanced Materials	3	Compulsory
Biotechnological Processes	3	Compulsory
Chemistry of Polymerization	3	Compulsory
Experimentation and Instrumentation	3	Compulsory
Nanotechnology	3	Compulsory
Polymer Processing and Coating Technologies	6	Compulsory
Polymers Physics	6	Compulsory
Technology Innovation	3	Compulsory
SECOND SEMESTER		
Biopolymers and Bioplastics	6	Compulsory
Polymer Characterization	6	Compulsory
Master's Thesis	18	Project