

Bachelor's degree in Mechanical Engineering Manresa School of Engineering (EPSEM)

The **bachelor's degree in Mechanical Engineering**, provides a solid grounding in the design, development and use of machinery; mechanical processes and systems; criteria for the selection of materials; and the structural design of production systems and processes. You will acquire the knowledge needed to analyse, calculate, design and test machines, industrial installations, hydraulic and thermal engines, industrial structures and constructions, and production systems. You will also receive multidisciplinary training in fluid mechanics, thermal technology, electricity, automation, the design and construction of industrial HVAC systems, and graphic engineering techniques.

GENERAL DETAILS

Duration

4 academic years

Study load

240 ECTS credits (including the bachelor's thesis). One credit is equivalent to a study load of 25-30 hours.

Delivery

Face-to-face

Language of instruction

Check the language of instruction for each subject (and timetable) in the course guide in the curriculum.

Information on language use in the classroom and students' language rights.

Fees and grants

Approximate fees per academic year: €1,107 (€2,553 for non-EU residents). Consult the public fees system based on income (grants and payment options).

Location

Manresa School of Engineering (EPSEM)

Official degree

Recorded in the Ministry of Education's degree register

ADMISSION

Places

180

Registration and enrolment

What are the requirements to enrol in a bachelor's degree course?

Legalisation of foreign documents

All documents issued in non-EU countries must be legalised and bear the corresponding apostille.

DOUBLE-DEGREE AGREEMENTS

Double-degree pathways at the UPC

You have the possibility of complementing this bachelor's degree with a specific pathway towards a double degree by taking

an additional number of credits from one of the other degrees taught at the School. Generally, this involves an additional year of study. To gain admission to a double degree of this kind you must have taken a minimum number of credits on one of the bachelor's degrees. The number of places is limited.

- Bachelor's degree in Mechanical Engineering + Bachelor's degree in Industrial Electronics and Automatic Control Engineering
- Bachelor's degree in Mechanical Engineering + Bachelor's degree in Chemical Engineering

PROFESSIONAL OPPORTUNITIES

Professional opportunities

- Planning, management, execution and assessment of engineering projects related to mechanical engineering.
- Management, design, assembly and maintenance of industrial and production systems and installations in the fields of mechanical, electromechanical and thermal engineering and fluid mechanics.
- Calculation and design of hydraulic and thermal engines.
- Projects in the industrial HVAC sector and the processing and transport of fluids.
- Design, management and maintenance of equipment and industrial installations, structures and constructions.
- Drafting of technical, advisory and feasibility reports.

ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

Academic calendar

General academic calendar for bachelor's, master's and doctoral degrees courses

Academic regulations

Academic regulations for bachelor's degree courses at the UPC

Language certification and credit recognition

Queries about language courses and certification

Manresa School of Engineering (EPSEM)

This bachelor's degree is also taught at

- Barcelona · EEBE · Show degree
- Terrassa · ESEIAAT · Show degree
- Vilanova i la Geltrú · EPSEVG · Show degree

CURRICULUM

Subjects	ECTS credits	Туре
FIRST SEMESTER		
Chemistry	6	Compulsory
Environmental Technologies and Sustainability	6	Compulsory
Introduction to Computing	6	Compulsory
Mathematics I	6	Compulsory
Physics I	6	Compulsory
SECOND SEMESTER		
Graphic Expression	6	Compulsory
Materials Science and Technology	6	Compulsory
Mathematics II	6	Compulsory

Physics II 6 Compulsory Statistics 6 Compulsory THRD SEMESTER 6 Compulsory Business 6 Compulsory Business 6 Compulsory Mechanical Systems 6 Compulsory Mechanical Systems 6 Compulsory Hermodynamical Guld Mechanics 6 Compulsory FOURTH SEMESTER 6 Compulsory Engineering Skills 6 Compulsory Industrial Control and Automation 6 Compulsory Mechanics Tennology 6 Compulsory Operations Management 6 Compulsory Strength of Materials 6 Compulsory Prilid Dynamics Sergineering 6 Compulsory Mechanics Talesters 6 Compulsory Methodralis Engineering 6 Compulsory Methodralis Engineering 6 Compulsory Methodralis Engineering 6 Compulsory Methodralis Engineering 6 Compulsory	Subjects	ECTS credits	Туре
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achelor's Thesis	6	Optional

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