

Bachelor's degree in Industrial Design and Product Development Engineering Vilanova i la Geltrú School of Engineering (EPSEVG)

On the **bachelor's degree in Industrial Design and Product Development Engineering** you will train to be a qualified professional who will carry out industrial design activities and create new products, concepts and services that add value to the production process. You will acquire the necessary experience in design to plan and develop the entire lifecycle of a product, as well as key competencies in establishing and developing operational, functional, technical, constructive, aesthetic and communicative aspects of production and commercialisation. You will learn to generate virtual and physical models and prototypes, use manual and computer tools for calculation and artistic and industrial expression, process graphic information, and analyse and assess the social and environmental impact of technical solutions.

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

[Vilanova i la Geltrú School of Engineering \(EPSEVG\)](#)

Official degree

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

ADMISSION

Places

100

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](#).

PROFESSIONAL OPPORTUNITIES

Professional opportunities

- Analysis and diagnosis of products and processes in companies in any industrial sector; technical, design, research and project departments; and new product development departments.
- Market analysis and identifying opportunities for new products; diagnosis in business innovation and strategy.
- Composition and formal analysis; modelling, simulation and development of models and prototypes.
- Ergonomics and aesthetics of industrial products and processes.
- Consultancy and advice.
- Freelance work: provision of consultancy and advisory services in design companies.
- Public administration.
- Teaching and research.

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](#)

Vilanova i la Geltrú School of Engineering (EPSEVG)

This bachelor's degree is also taught at

- Terrassa · ESEIAAT · [Show degree](#)

CURRICULUM

Subjects	ECTS credits	Type
FIRST SEMESTER		
Chemistry	6	Compulsory
Fundamentals of Mathematics	6	Compulsory
Informatics	6	Compulsory
Physics I	6	Compulsory
Sustainability and Accessibility	6	Compulsory
SECOND SEMESTER		
Aesthetics	6	Compulsory
Graphic Expression	6	Compulsory
Materials Science	6	Compulsory
Mathematics for Design	6	Compulsory
Physics II	6	Compulsory
THIRD SEMESTER		
Artistic Expression	6	Compulsory
Design Workshop I	6	Compulsory

Subjects	ECTS credits	Type
Layout and Prototyping	6	Compulsory
Mechanics	6	Compulsory
Statistics	6	Compulsory
FOURTH SEMESTER		
Business	6	Compulsory
Design and Technical Representation	6	Compulsory
Design Workshop II	6	Compulsory
Elasticity and Strength of Materials	6	Compulsory
Electrical Systems	6	Compulsory
FIFTH SEMESTER		
Academic and Professional Communication Techniques	6	Optional
Agile	6	Optional
Basic Design	6	Compulsory
Computer-Aided Design	6	Compulsory
Electronic Systems for Design	6	Compulsory
Emobility	6	Optional
Formula Student 1	6	Optional
Graphic Design	6	Compulsory
Manufacturing Processes	6	Compulsory
Moto Student 1	6	Optional
Writing Techniques for Engineering	6	Optional
SIXTH SEMESTER		
Academic Skills for Project Development	6	Optional
Design Methodology	6	Compulsory
Design Workshop III	6	Compulsory
Emobility Lab	6	Optional
Formula Student 2	6	Optional
Mechanism Design	6	Compulsory
Moto Student 2	6	Optional
Product Design	6	Compulsory
Project Management	6	Compulsory
SEVENTH SEMESTER		
(Ang) Màrqueting i Producció	6	Compulsory
Advanced Calculus	6	Optional
Battery Management Systems	6	Optional
Computer-Aided Machines Design	6	Optional
Design and Prototype of Molds	6	Optional
Design Materials	6	Optional

Subjects	ECTS credits	Type
Differential Equations	6	Optional
Electric and Hybrid Vehicles	6	Optional
Electronics in Renewable Energy Systems	6	Optional
Fluid Mechanics	6	Optional
Forensic Engineering and Industrial Reliability	6	Optional
Fundamentals of Automatic Control	6	Optional
Fundamentals of Termical Engineering	6	Optional
Human-System Interaction	6	Optional
Inclusive and User-Centred Design	6	Optional
Management and Saving of Electrical Energy	6	Optional
Motors and Electric Mobility	6	Optional
Production Organisation	6	Optional
Railway Technologies	6	Optional
Renewable Energy Sources and Systems	6	Optional
Usability and Accessibility Engineering	6	Optional
EIGHTH SEMESTER		
Accessibility Applied	6	Optional
Language Practice	3	Optional
Social Robotics Workshop	6	Optional
Sustainability Applied	6	Optional
Bachelor's Thesis	24	Project