

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 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 |