UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH

Bachelor's degree in Electrical Engineering and Railway Systems

The **bachelor's degree in Electrical Engineering and Railway Systems** provides specific scientific and technological training in the field of electrical engineering, with an emphasis on railway systems, both in its industrial component and in project development and technological innovation. The aim is to provide students with tools that allow them to access qualified jobs in which they will hone the professional skills set out in Law 12/1986 or that require specific instruction in railways.

Students are trained in the fundamentals of science and engineering that allow them to supervise and manage engineering projects that involve designing, analysing, constructing, checking and maintaining systems and equipment for the generation, transmission, distribution and consumption of electric power. Other fundamental training objectives specific to the railway sector are its organisation and structure and the systems of which it is composed: electrification systems, safety and signalling systems, communications systems, installations and maintenance of rolling stock. Aspects of managing and operating railway systems are also considered.

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)

ADMISSION

Places

200

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

- Supervision and management of engineering projects that involve designing, analysing, constructing, checking and maintaining systems and equipment for the generation, transmission and distribution of electric power.
- Analysis, design, testing and control of domestic and industrial electrical installations.
- Management of electrical power systems, installations and drives.
- Design, installation and maintenance of electromechanics, automation and industrial production lines.
- Energy and environmental management.
- Energy generation in wind and solar power systems.
- Drafting of technical advisory and feasibility reports.
- Management, organisation, planning and quality control.
- Project management in railway systems.
- Management and use of railway networks.
- 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)