Bachelor's degree in Electronic Engineering and Telecommunications

Today, practically all spheres of human activity require the support of electronics, including communications systems, multimedia services, industrial process control, energy management, the automobile industry, medicine, all of which depend on electronics and its ability to cut across disciplines. In addition, the current trend in clean electricity makes electronics more present than ever: from microchips to train engines, electronics is everywhere.

This bachelor's degree aims to cover the needs of companies and institutions in a wide range of sectors that require staff who are highly qualified in design and technological development in the field of electronics. It provides a solid grounding in the principles of electronics and mathematics and gives students the skills they need to work in a field whose future is beyond our imagination.

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: €1,660 (€2,490 for non-EU residents). Consult the public fees system based on income (grants and payment options).

Location
Barcelona School of Telecommunications Engineering (ETSETB)

ADMISSION

Places
50

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
Graduates may find employment in the areas of ICT engineering. They will be equipped to supervise and carry out tasks related to the design, implementation and management of electronic systems in fields and sectors such as the following:
  • Consumer electronics.
Course structure
The 240 ECTS credits in the syllabus are organized into 4 academic years. Each course has 60 ECTS, divided into two semester periods of 30 ECTS. One ECTS credit is considered to correspond to a student's dedication of 25 hours.

- Basic training: 66 ECTS
- Compulsory training: 138 ECTS
- Elective training, internships and university extension activities: 18 ECTS
- Final Degree Project: 18 ECTS

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

Barcelona School of Telecommunications Engineering (ETSETB)

CURRICULUM

<table>
<thead>
<tr>
<th>Subjects</th>
<th>ECTS credits</th>
<th>Type</th>
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<tr>
<td><strong>FIRST SEMESTER</strong></td>
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<td>Algorithms and Programming</td>
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<td>Calculus</td>
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<td>Components and Circuits</td>
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<tr>
<td>Introduction to Mathematics</td>
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<td>Linear Algebra</td>
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<td>Differential Equations and Transforms</td>
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<td>Applied Electromagnetism and Photonics</td>
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<td>Circuit Simulation and Analysis Using PSpice</td>
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<td>Create Your Future: Just a Job or Your True Passion</td>
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<td>Digital Design</td>
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<td>Electronic Devices</td>
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<td>Ethics in Ict</td>
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<td>Financial Engineering for Economic Planning of Investments</td>
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<td>History of Computing</td>
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<td>Ictd. Technology for Sustainable Development</td>
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<td>Linear Algebra, Linear Codes and Secret-Sharing Schemes</td>
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<td>Low Cost Measurement Systems</td>
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<td>Machine Learning</td>
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February 2022. [UPC](https://www.upc.edu). Universitat Politècnica de Catalunya · BarcelonaTech