Bachelor's Degree in Telecommunication Technologies and Services Engineering

Introduction to the degree

The Bachelor’s Degree in Telecommunication Technologies and Services Engineering introduces students to the techniques and technologies required to resolve problems relating to signal transmission and receiving and communication networking. Students also study the design of electronic communications systems. This degree trains students to work in the fields of telecommunications and, telematic and electronic technologies, as well as multimedia and audiovisual engineering.

Telecommunications studies are in high economic and social demand, and provide future graduates with a professional profile which will be successful and valued due to their extensive knowledge of state-of-the-art technologies, in addition to their adaptation skills and great versatility.

The Bachelor’s Degree in Telecommunication Technologies and Services Engineering qualifies for practising the regulated profession of Technical Engineer in Telecommunication. In addition, this program is the reference degree to access to Master’s Degree in Telecommunication Engineering at UPV.

Continuation of studies

With this degree, you will be able to access to:

- MD in Telecommunications Engineering
- MD in Technologies, Communication Systems and Networks
- MD in Electronic Systems Engineering
- MD in Biomedical Engineering
- MD in Acoustical Engineering
- MD in Telecommunications Engineering

International mobility

The School of Technical Telecommunications Engineering has entered into a number of exchange and dual degree agreements with universities around the world. These universities are mainly located in Europe, but also in the USA, Canada, Australia and Japan. Therefore, students are able to complete part of their studies abroad or in other Spanish universities through exchange programs (Erasmus, Séneca, Promoe, etc.) and may also obtain a dual degree upon completion.

Internships

These Studies have a clearly practical focus, which is reflected in the many practicums and labs done throughout the degree program, as well as the wide selection of internships at companies and research entities in the last two academic years (recognised with up to 24 ECTS), which is an important factor for learning and subsequent employability.

Professional opportunities

This bachelor's degree enables you to work in all the specialized fields of technical telecommunications engineering. The education you receive will allow you to hold positions within the management teams of private firms or public institutions, and to lead and manage research and development projects in the most advanced technologies. The jobs you can choose include the following:

- Private sector: companies designing and using telecommunications services, large telecommunications, aerospace, security, consulting, ICT, radio and television, banking and electronic commerce companies, as well as telecommunications-related SMEs.
- Freelancing: in project work, the provision of expert opinions, and facilities, as well as the start-up of technology-based companies.
- Public Administration: mainly in ICT areas.
- Research, development and innovation: in public and private centres and the R&D+i departments of large enterprises.

Study at the UPV and be part of Spain’s best technological university according to the Shanghai ranking
Bachelor's Degree in
Telecommunication Technologies
and Services Engineering

Curriculum

Credits for obtaining the degree

<table>
<thead>
<tr>
<th>Basic courses</th>
<th>Compulsory</th>
<th>Elective</th>
<th>Internship</th>
<th>TFG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.00</td>
<td>99.00</td>
<td>66.00</td>
<td>0.00</td>
<td>12.00</td>
<td>240.00</td>
</tr>
</tbody>
</table>

The subjects that you will be able to take

**Basic courses**
- Circuit Theory
- Electronic Circuits
- Electronic Devices
- Fundamentals of Business Organisation and Management
- Mathematics I - II
- Physics I - II
- Programming
- Signals and Systems

**Compulsory courses**
- Acoustics
- Communication Theory
- Computer Fundamentals
- Design of Telematics Services
- Digital Fundamentals
- Digital Signal Processing
- Electromagnetic Waves
- Foundations of Networking
- Integration of Digital Systems
- Mathematics III
- Microprocessors Based Systems
- Multimedia Communications
- Networking Architectures
- Optical Communications
- Probability and Random Signals
- Processing and Energy Conversion
- Programmable Digital Systems
- Telecommunication Networks
- Telematics Applications
- Transmission Fundamentals

**Elective courses**
- Academic and Professional German A1 - A2 - B1 - B2
- Academic and professional Italian A1 - A2
- Access Networks
- Analog and Mixed Signal Microelectronics
- Antennae
- Applications with Microcontrollers
- Architectural Acoustics
- Audio Equipment and Systems
- Audio-Visual Production
- Audio-Visual Projects and Installations
- Biologically Inspired Complex Systems
- Biomedical Instrumentation
- Corporate Networks
- Data Communication
- Design of Electronic Systems
- Digital Audio Processing
- Digital Communications
- Digital Signal Processing for Communications
- Digital Signal Processors DSP
- Electronic Communication Systems
- English for Academic and Professional Purposes (level B2)
- Environmental Acoustics
- Image Processing
- Instrumentation and Quality
- Integrated Analogue Devices
- Local Area Networks
- Microwaves
- Mobile and Wireless Communications
- Network Security
- Network Switching
- Network Systems Engineering
- Optical Communication Systems
- Public Access Networks
- Public Transport Networks
- Radar
- Radio Communications
- Satellite Communications
- Sensors
- Technical Valencian C1 - C2
- Telecommunications Policy
- Telematics Systems for Information Management
- Transmission Lines
- Video and Audio Signals Distribution
- Video Systems
- VLSI Fundamentals

Internationally accredited bachelor’s degree (EUR-ACE – ABET)