Bachelor's degree in Audiovisual Systems

The bachelor’s degree in Audiovisual Systems provides the necessary cross-disciplinary skills to conceive, design, implement and operate products, systems and services in the field of audiovisual systems engineering, particularly acoustics, image, audio, video and multimedia. You will tackle the fundamentals and applications of audio, video and multimedia systems and acquire techniques for the analysis and synthesis of electrical and electronic circuits and digital and analogue communications. You will specialise in acoustics and sound systems, digital signal processing, communication systems, electronic equipment and devices and multimedia techniques.

This bachelor's degree is taught at The School of Industrial, Aerospace and Audiovisual Engineering of Terrassa. ESEIAAT

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

Fees and grants
Approximate fees per academic year: €2,551 (€3,826 for non-EU residents). Consult the public fees system based on income (grants and payment options).

Official degree
Recorded in the Ministry of Education's degree register

ADMISSION

Places
60

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
- Design and development of audio and video capture, processing, transmission and reception systems.
- Maintenance of television, audio and video systems, equipment, headers and installations.
- Maintenance of electronic and computer equipment for the audiovisual sector.
- Development of storage, management, transmission and dissemination systems for audiovisual content.
- Creation, programming, management and dissemination of multimedia applications and content following usability and accessibility criteria.
- Design and development of acoustic engineering projects: acoustic design, PA systems, measuring systems, noise and vibration analysis and control, and environmental and underwater acoustics.
- Freelance work: consultancy and advisory services.
- Teaching and research.
ORGANISATION

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.

Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT)

CURRICULUM

<table>
<thead>
<tr>
<th>Subjects</th>
<th>ECTS credits</th>
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<td><strong>FIRST SEMESTER</strong></td>
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<tr>
<td>Algebra</td>
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<td>Calculus</td>
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<td>Environmental Technologies and Sustainability</td>
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<td>Foundations of Computing</td>
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<td>Physics I</td>
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<td><strong>SECOND SEMESTER</strong></td>
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<td>Data Structures and Object Orientation</td>
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<td>Digital Electronics</td>
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<td>Electronic Devices and Circuits</td>
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<td>Fourier Analysis and Differential Equations</td>
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<td>Physics II</td>
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<td>Data Bases</td>
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<td>Economics and Business Administration</td>
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<td>Probability and Stochastic Processes</td>
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<td>Signals and Systems</td>
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<td><strong>FOURTH SEMESTER</strong></td>
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<td>Acoustics I</td>
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<td>Analogue and Digital Communications</td>
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<td>Digital Processors</td>
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<td>Foundations of Telematic Networks</td>
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<tr>
<td>Implementation of Audiovisual Systems</td>
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<td>Uav Research &amp; Development</td>
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**FIFTH SEMESTER**

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<td>Digital Audio Processing</td>
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<td>Digital Image Processing</td>
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<td>Sound Equipment</td>
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<td>Telematic Applications and Services</td>
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**SIXTH SEMESTER**

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<td>Advanced Programming Oriented Towards Goals</td>
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<td>Algorithms and Audiovisual Programming</td>
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<td>Creative Programming with Processing</td>
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<td>Decision Criteria - Engineer as Employee or Engineer as Entrepreneur</td>
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<td>Energy Efficiency Systems</td>
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<td>Experimental Design</td>
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<td>Fundamentals of Robotics</td>
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<td>Highly Automated Production Systems</td>
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<td>Information and Communication Technology</td>
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<td>Introduction to Object-Oriented Programming</td>
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<td>Introduction to Reverse Engineering</td>
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<td>Mathematical Models in Engineering</td>
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<td>Mathematics and Computing Engineering</td>
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<td>Robotics and Automation</td>
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<td>Transmitters and Receivers</td>
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<td>Video Equipment</td>
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<td>Web Applications</td>
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<td>Written Academic Skills for Engineering</td>
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**SEVENTH SEMESTER**

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<td>Audio and Video Production</td>
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<td>Computer Vision</td>
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<td>Engineering Project Design</td>
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<td>Initiation to Paper and Graphic Industrial Technologies</td>
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<td>Internship</td>
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<td>Modelisation, Complexity and Sustainability</td>
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<td>Multimedia Content</td>
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<td>Programming of Mobiles Android</td>
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<td>Quality Measurement of Audio-Visual Signals</td>
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<td>Photonics. Optics Applied to Engineering</td>
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