

# Bachelor's degree in Architectural Technology and Building Construction

**Architectural technology and building construction** professionals contribute to building the cities of the future and improving people's quality of life. It is a versatile profession that will provide you with a general view of the construction cycle and allow you to choose a specialisation ranging from energy efficiency and 3D design to business administration and works management. You will also become an expert in materials, structures and facilities.

To achieve this, we will provide you with a Europe-focused, generalist education on the theory, techniques and technology of the building construction sector. We emphasise going beyond lectures, fostering practical and transversal education and incorporating new teaching methods and activities that increase students' active participation in the learning process.

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## GENERAL DETAILS

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### 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 (€1,661 for non-EU residents). [Consult the public fees system based on income \(grants and payment options\)](#).

### Location

[Barcelona School of Building Construction \(EPSEB\)](#)

### Official degree

[Recorded in the Ministry of Education's degree register](#)

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## ADMISSION

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### Places

150

### 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](#).

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## PROFESSIONAL OPPORTUNITIES

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### Professional opportunities

- Organisation and supervision of building, rehabilitation and restoration work.
- Quality control of building materials and implementation of the technical standards of construction.

- Interior design.
- Technical environmental impact services and auditing services for energy efficiency certification.
- Studies on the sustainability of buildings and management of building use, conservation and maintenance.
- Management of construction and real estate companies.
- Project management.
- Structural design.
- Advanced facilities.
- Production management in companies offering products and technical innovations for building construction.
- Technical consulting and real estate and urban management.
- Financial organisation and management, including assessments, appraisals and economic feasibility studies.
- Coordination of occupational health and safety, including drafting safety studies and plans, training staff, etc.
- Development of 3D architectural projects (specialisation in software based on the BIM method).
- Technical CAD (Computer-aided design).
- Public administration.
- Teaching and research.

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## ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

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### 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 Building Construction (EPSEB)

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## CURRICULUM

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Subjects	ECTS credits	Type
<b>FIRST SEMESTER</b>		
Fundamentals of Materials, Chemistry and Geology	3	Compulsory
Introduction to Architectural Drawing	6	Compulsory
Introduction to Construction	4.5	Compulsory
Mathematical Fundamentals	6	Compulsory
Mechanics	6	Compulsory
Workshop 1: Learning From Traditional Construction	4.5	Compulsory
<b>SECOND SEMESTER</b>		
Architectural Drawing	6	Compulsory
Architecture, Construction and the City in Western History	4.5	Compulsory
Installations Physics and Energy Efficiency	4.5	Compulsory
Introduction to Structures	6	Compulsory
Stone Materials	6	Compulsory
Workshop 2: Concept Modeling (Bim)	3	Compulsory
<b>THIRD SEMESTER</b>		
Applied Statistics	6	Compulsory

<b>Subjects</b>	<b>ECTS credits</b>	<b>Type</b>
Business Management	4.5	Compulsory
Non-Stone Materials	6	Compulsory
Steel and Concrete Structures	4.5	Compulsory
Structures Construction	4.5	Compulsory
Workshop 3: Management I	4.5	Compulsory
<b>FOURTH SEMESTER</b>		
Construction Surveys and Layouts	4.5	Compulsory
Fluid Installations	6	Compulsory
Legislation Applied to Building	6	Compulsory
Occupational Risks Prevention	4.5	Compulsory
Underground Construction	4.5	Compulsory
Workshop 4: Building Analysis	4.5	Compulsory
<b>FIFTH SEMESTER</b>		
Building Pathology	3	Compulsory
Electromechanic Installations	6	Compulsory
Envelopes and Finishes Construction	4.5	Compulsory
Structural Systems	6	Compulsory
Urban Management	4.5	Compulsory
Workshop 5: Diagnosis	6	Compulsory
<b>SIXTH SEMESTER</b>		
Advanced Technics in Graphical Expression	3	Compulsory
Budgets and Cost Control	7.5	Compulsory
Quality in the Building Process	4.5	Compulsory
Site Organization and Planning	7.5	Compulsory
Workshop 6: Management II	7.5	Compulsory
<b>SEVENTH SEMESTER</b>		
Conservation and Maintenance	4.5	Compulsory
Health and Safety at Work Coordination	4.5	Compulsory
Loss Adjustment and Valuation	4.5	Compulsory
Workshop 7: Rehabilitation	7.5	Compulsory
Workshop 8: Projects	9	Compulsory
<b>EIGHTH SEMESTER</b>		
21st Century Buildings: a Case Study for Finite Elements and Durability	3	Optional
Advanced Energy Modeling in Existing Buildings	3	Optional
Advanced Facilities Management	3	Optional
Architectural Lighting	3	Optional
Architecture and Construction of the House. History and Heritage Values for Rehabilitation	3	Optional
Artificial Intelligence in Construction	3	Optional

<b>Subjects</b>	<b>ECTS credits</b>	<b>Type</b>
Building Acoustics	3	Optional
Business Innovation	3	Optional
Business Law	3	Optional
Change of Use of Building	3	Optional
Circular Architecture	3	Optional
Commercial Strategy in the Construction and Real Estate Sector	3	Optional
Construction Life Cycle Analysis	3	Optional
Fire Safety in Buildings	3	Optional
Gaudí & Art Nouveau (Gaudí, Modernism, Noucentisme)	3	Optional
Geomatic Techniques for Building	3	Optional
Gis and Territory	3	Optional
Interior Design Project	3	Optional
Introducing Lean Construction	3	Optional
Lean Construction and Circular Economy Basis	3	Optional
Management Skills	3	Optional
Quantity Surveyor	3	Optional
Real Estate Project Finance	3	Optional
Sensorization and Digitization of Use	3	Optional
Sketching Bonds and Surfaces	3	Optional
Strategies and Business Leadership in the Construction Sector	3	Optional
Traditional Materials and Techniques	3	Optional
Urbanization Projects	3	Optional
Virtual Representation of Bim Models and Heritage Surveys	3	Optional
Workshop 9: Final Model	6	Compulsory
Bachelor's Thesis	12	Project