Bachelor’s degree in Biosystems Engineering

The bachelor’s degree in Biosystems Engineering combines biology with the UPC's expertise in technology to produce engineers who have technical skills and a capacity for innovation in the biotechnology sector. You will receive multidisciplinary training in areas such as microbiology, biochemistry, molecular biology, bioinstrumentation, in vitro culture and bioreactor operation, as well as techniques for bioenergy and biomaterial production, environmental bioremediation and aquatic organism production. You will also learn the technological fundamentals of engineering for the design and use of facilities and equipment in the biotechnology industry and for the application of biotechnology in environmental recovery and improvement.

The programme includes fieldwork, laboratory and computer modelling practicals that provide training in technology, applied biology and the economic viability of companies in the sector.

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
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
- Technical management of industrial biotechnology facilities.
- Design and operation of bioreactors.
- Technical and project management in bioremediation.
- Wastewater management and treatment, biological treatment and waste valorisation.
- Design and management of facilities for the production, storage and processing of biological material.
- Design and management of aquaculture facilities.
- Research, design and development in the biotechnology sector.
### 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

Barcelona School of Agricultural Engineering (ESAB)

### CURRICULUM

<table>
<thead>
<tr>
<th>Subjects</th>
<th>ECTS credits</th>
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<tr>
<td><strong>FIRST SEMESTER</strong></td>
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<td>Chemistry I</td>
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