



*Bachelor's Degree in*

# AGRICULTURAL ENVIRONMENTAL AND LANDSCAPE ENGINEERING



**Landscape and environmental  
management of natural  
resources and green spaces  
for a better world**

Environment, Landscape, Natural resources, Horticultural production,  
Green spaces...



UNIVERSITAT POLITÈCNICA DE CATALUNYA  
BARCELONATECH

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### INTRODUCTION

The bachelor's degree in Agricultural, Environmental and Landscape Engineering will provide you with the scientific and technological knowledge necessary to design, plan and manage projects aimed at preserving and improving the environment and landscape, spatial planning and vegetable and fruit production. You will receive multidisciplinary training in techniques of plant production, ecosystems and biodiversity, hydrology, erosion and climate change, as well as in the technological principles of engineering for the design of green areas, sport grounds, fruit and vegetable farms and environmental improvement.

**Professional recognition** Technical agricultural engineer

**Duration** 4 years

**Study load** 240 credits (including the bachelor's thesis). One credit is equivalent to a study load of 25-30 hours.

**Delivery** Face-to-face classes.

### PROFESSIONAL OPPORTUNITIES

- Technical management of horticultural farms, business and agricultural cooperatives.
- Technical work in environmental and landscape service companies.
- Land management in rural and peri-urban areas.
- Planning, design and management of parks, gardens and sport areas.
- Environmental restoration and remediation.
- Waste management.
- Freelance work: projects, consultancy, advice, appraisals, site management, environmental studies, etc.
- Public administration.



### COURSE STRUCTURE

	FALL	SPRING
<b>1st year</b>	<b>FIRST SEMESTER</b> General Biology (6) Drawing for Engineering (6) Physics I (6) Mathematics I (6) Chemistry I (6)	<b>SECOND SEMESTER</b> Plant Biology (6) Earth Sciences (6) Physics II (6) Mathematics II (6) Chemistry II (6)
<b>2nd year</b>	<b>THIRD SEMESTER</b> Ecology and Environmental Management Systems (6) Economics and Business Administration (6) Statistics (6) Hydraulics (6) Energy Systems and Components (6)	<b>FOURTH SEMESTER</b> Foundations of Plant Production (6) Animal Production (6) Plant Production Systems (6) Geomatics (6) Market Analysis and Agricultural Valuation (6)
<b>3rd year</b>	<b>FIFTH SEMESTER</b> Use of Reclaimed Water and Organic Waste (6) Environment and Environmental Impact (6) Landscape History and Composition (6) Implementation and Management of Green Spaces(6) Horticultural Technology (6)	<b>SIXTH SEMESTER</b> Irrigation and Drainage Technology (6) Valuation and environmental policy (6) Multiplication and Nurseries (6) Landscape Design (6) Horticultural Production (6)
<b>4th year</b>	<b>SEVENTH SEMESTER</b> Construction and Structural Design (6) Bachelor's Thesis or Project (24) Work Placement (12) National and International Mobility: Sicue, Erasmus...(up to 24)	<b>EIGHTH SEMESTER</b> Horticultural and green space mechanisation (6) Bachelor's Thesis or Project (24)
	<b>ELECTIVE COURSES: (up to 24)</b> Viticulture(6) Organic Agriculture (6) Construction and Structural Design (6) Entrepreneurship in the Agro-Food Sector (6)	<b>ELECTIVE COURSES: (up to 24)</b> Advanced Statistics (6) Pest and Disease Management (6)