

# MASTER'S DEGREE IN ENVIRONMENTAL ENGINEERING

**ESCOLA DE CAMINS**

Barcelona School of Civil Engineering



UNIVERSITAT POLITÈCNICA  
DE CATALUNYA  
BARCELONATECH

*International Campus of Excellence*

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# MASTER'S DEGREE IN ENVIRONMENTAL ENGINEERING

The aim of this master's degree is to provide in-depth knowledge of concepts and criteria that are fundamental to an understanding of the relations between human activity and the environment. The master's degree provides up-to-date training in technologies for the prevention and treatment of pollution, as well as basic tools for managing and guaranteeing the quality of the environment. It produces graduates who are able to practise their profession with due regard to ethics and the proper management of environmental issues.

The master's degree in Environmental Engineering provides multidisciplinary scientific, technical and technological knowledge for identifying, measuring, predicting and correcting environmental problems, which will enable you to make decisions and lead teams. It is aimed at anyone who is interested in deepening their knowledge in the field of environmental engineering from different perspectives who meet the general and specific access requirements.

120  
ECTS

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## Which subjects will you choose?

Each subject of the curriculum is 5 ECTS.



**81%**  
graduation rate

**14**  
research groups

**19**  
teaching and research laboratories

**26%**  
international students

## Professional opportunities

The master's degree combines advanced materials science and applied engineering knowledge and its graduates are able to solve complex environmental engineering problems from various perspectives and go on to successfully pursue a doctoral degree in the field. Companies that employ graduates of this master's degree are generally engineering and environmental consultancy firms, construction companies, national and international government agencies, universities and research centres.

## Languages

Face-to-face teaching is in Spanish, Catalan or English.

## International recognition

The master's degree in Environmental Engineering has a high percentage of

international students. A credit load of 120 ECTS credits distinguishes it from other options and ensures the provision of a solid education in this scientific and technical field.

## Research

The research lines that lecturers pursue in their research groups cover many different fields of environmental engineering, from basic and scientific aspects of environmental chemistry and biology to processes and decision making in technological contexts and applied to large-scale facilities.

## Master's thesis

The master's thesis is oriented towards professional practice or research on a subject of the degree. The student must make an original contribution to the subject or devise a new application for an aspect of it. The process of writing the thesis ends with the preparation of a report and a public defence to a committee of experts.

## Specific requirements

- A pre-EHEA university degree in architecture, engineering (civil, industrial, chemical and mining engineering; forestry; engineering physics) or science (environmental, chemical, physical, biological and geological science).
- A bachelor's degree in engineering (civil, industrial, chemical and mining engineering; forestry; engineering physics; agronomy), architecture or science (environmental, chemical, physical, biological and geological science).

Graduates of other university degrees may need to take bridging courses.

For further information on these requirements, visit the master's degree website:

[www.camins.upc.edu/estudis](http://www.camins.upc.edu/estudis)

Compulsory subjects	Environmental Systems / Introduction to Environmental Biotechnology / Geochemical Processes / Climate and Climate Change / Environmental Systems Modelling / Environmental Engineering Laboratory.	30
	Characterisation, Management and Treatment of Air Pollution / Characterisation, Management and Treatment of Water Pollution / Characterisation, Management and Treatment of Soil and Groundwater Pollution / Characterization, Management and Treatment of Waste.	20
	Environmental Management Systems and Tools / Economics, Law and Environmental Policy / Life Cycle Analysis and Sustainability Assessment / Environmental Project Management.	20
Optional subjects	Energy and the Environment / Harnessing Renewable Energy, Biomass and Waste / Biogas and Biofuels / Sustainability and Development Engineering / Industrial Ecology / Urban Metabolism and Ecological Urbanism / Noise Pollution / Organic Pollutants in Continental Waters / Ecomaterials and Sustainable Construction / Advanced Industrial Wastewater Treatment / Integrated Environmental Valorisation of Construction Materials / the Food Industry and the Environment / Water Supply.	20
	Industrial Training	
Master's Thesis		30

Basic environmental engineering

Environmental technology

Environmental management tools

Specific technologies, methods and sectors

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**Acquire  
technological  
and management  
knowledge  
for sustainable  
development**

**You can carry out  
the master's thesis on  
an innovative and  
creative subject  
of the field**



## Your talent, leading your future

Further information:

[www.camins.upc.edu/estudis](http://www.camins.upc.edu/estudis)  
[area.academica@upc.edu](mailto:area.academica@upc.edu)

[www.upc.edu/sri/en/students](http://www.upc.edu/sri/en/students)

The School of Industrial, Aerospace and Audiovisual  
Engineering of Terrassa provides teaching  
for this degree.



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