

# MSc Applied Environmental Science

1 Year Full Time | 2 Years Part Time

Course Code: X062



The study of Applied Environmental Science is critical for establishing policies in environmental assessment, evaluating potential change in environmental quality in response to various land use and other activities, and in the development of management and conservation strategies, as well as contributing to policy formulation. This course has a heavy emphasis on practical training in fieldwork, laboratory analyses, information sourcing, data analysis, planning, reporting and communication.

You will work with an interdisciplinary team of experts covering the key aspects of Environmental Science, encompassing marine, freshwater and terrestrial systems. This is the only Applied Environmental Science course in Ireland to include a major input from civil engineering, relating particularly to water quality, hydrology and waste treatment processes.

## Applicant Profile

- This programme is intended for applicants with a primary degree in science, engineering, geography, architecture or a related subject. An upper second class honours or international equivalent is required.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent, such as TOEFL (iBT) score of 90 or PTE score of 63. Visit the UCD Admissions website for further details. Applicants with an IELTS score of at least 5.5 may apply for admission to the UCD Pre-Masters Pathway programme.

## Course Content and Structure



### Modules and Topics (Subject to change and are not guaranteed by UCD)

- Water Resources Engineering
- Environmental Impact Assessment
- Quantitative Tools for the Life Sciences
- Freshwater Resources Assessment
- Global Change Ecology
- Wildlife and Resources Management
- Marine/Coastal Ecology
- Soil Ecology
- Environmental Geology
- Ecotoxicology and Air Quality Monitoring
- Vegetation Ecology
- Remote Sensing
- Geographic Information Systems (GIS) and Data Analyses
- Ecological Modelling
- Integrated Municipal Solid Waste Management
- Water, Waste and Environmental Modelling
- Carbon and Sustainability
- Sustainable and Nature Based Water Infrastructure
- Research Project/Task (20 credits)  
This project includes time spent collecting data in the field on a research topic towards the production of journal ready articles.

### Internship Opportunities\*

Internship opportunities are available for at least a 6-week period in the environmental sector (including consultancies, government agencies and industry) over the Summer Trimester. Examples of previous placements are RPS Group, Dublin City Council, Department of Agriculture, Food and the Marine, Golder Associates and Dublin Urban Rivers Life Project.

\*Placements are secured through a competitive process and are not guaranteed.

## Graduate Testimonials

**Hannah Fearon**  
RPS Environmental, Ireland

The course was an eye-opening experience with a great mixture of lab sessions, field work and lectures. The highlight was the opportunity to gain professional work experience and I would encourage anyone interested in following a career in the Environmental sector to seriously consider this course.

**Betsy Townsend**  
Physicist, US EPA

The MSc coursework paired with my 6-week placement at Dublin City Council prepared me for a career in the environmental sector, and gave me proficiency in the collection, processing, analyses, and interpretation of environmental data.

## Career Opportunities

Our graduates are building successful varied careers in environmental resources assessment, management and protection. A considerable number have been employed in environmental consultancy and national and International government agencies, such as Inland Fisheries Ireland and the Environmental Protection Agency (EPA). Some graduates have also continued their studies at PhD level in the areas of fisheries, biomass fuels, soil, water engineering and invertebrate ecology. The course gives due consideration to key legislative requirements and policy developments.



### EU Enquiries

Associate Professor Tancredi Caruso  
UCD School of Biology and Environmental Science

✉ [tancredi.caruso@ucd.ie](mailto:tancredi.caruso@ucd.ie)

🌐 [www.ucd.ie/courses/msc-environmental-science](http://www.ucd.ie/courses/msc-environmental-science)

### Non-EU Enquiries

✉ [internationalenquiries@ucd.ie](mailto:internationalenquiries@ucd.ie)

🌐 [www.ucd.ie/global](http://www.ucd.ie/global)

### Apply Now

This programme receives significant interest so please apply early online at

[www.ucd.ie/apply](http://www.ucd.ie/apply)