



# MEngSc Water, Waste & Environmental Engineering

One Year Full Time / Two Years Part Time



## Introduction

This programme prepares graduates to work in the broad field of environmental protection and management. You will gain advanced theoretical and conceptual knowledge and understanding in the area of environmental engineering on topics such as environmental modelling, water and wastewater treatment, solid waste management, and environmental data analysis, amongst others. Environmental engineering involves the

application of engineering and scientific principles to solve or prevent environmental problems. This programme allows you to gain competencies in the design of facilities to treat water, wastewater and wastes; in the development and protection of water resources; in the design of flood protection systems; in the analysis of environmental data; and in the design of infrastructure that respects the principles of environmental sustainability.

## Course Highlight

The UCD School of Civil Engineering has made major investments in recent years to modernise and improve its research capability across a range of sub-disciplines and to establish facilities for world class research. Facilities include laboratories for structural testing, concrete, soils, road materials, hydraulics, water and effluent analysis, PC and workstation facilities and an engineering workshop.

## Course Content and Structure

- 90 credits taught masters
- 60 credits taught modules
- 30 credits dissertation

### Modules may include:

- Advanced Air Pollution
- Environmental Impact Assessment
- Environmental Research Project
- Freshwater Resources Assessment
- Remote Sensing and GIS
- Hydraulic Engineering Design
- Waste Management
- Introduction to Water Resources Engineering
- Quantitative Methods for Engineers
- Life Cycle Assessment
- Unit Treatment Process in Water Engineering
- Water Waste and Environmental Modelling

## Why study at UCD?



### Graduate education

12,800 graduate students; 17% graduate research students; structured PhDs



### Global community

9,500 international students and a 300,000 alumni network across 165 countries



### Global Profile

UCD is ranked in the top 1% of higher education institutions worldwide



### Global careers

Dedicated careers support; 2-year stayback visa to work in Ireland





## Career Opportunities

Graduates from the programme will find employment as engineers in the private sector (e.g., engineering consultancy, engineering design, project management, risk assessment, waste management), in the public sector (e.g., environmental protection, regulation, standards development, local government, river basin management), and in the non-governmental sector (e.g., environmental advocacies, NGOs), or may wish to pursue further qualifications (e.g., PhD, MBA) to become even more specialised. Employers of environmental engineers include commercial firms, engineering consultancies, government agencies, and non-governmental organisations, all well known in Ireland and many with global operations

## Graduate Profile

Sarah Nolan  
Ryan Hanley Consultants



Having always had a passion for the environment, specifically water sciences, I knew the MEngSc degree at UCD was the perfect course to further develop my knowledge and equip me with the skills to succeed in my career. Having worked for many years following graduating from my undergraduate degree, I took the time to carefully choose the best masters that would help me reach my goal of working in the water industry. The Water, Waste and Environmental Engineering master's degree at UCD is a challenging and thoroughly rewarding course, which covers a variety of subject matters taught through lectures, tutorials, and labs. Gaining an engineering context to my previous scientific studies has significantly enhanced my knowledge and understanding of water sciences.

## Applicant Profile

- ◆ An honours undergraduate degree (NFQ level 8) with a minimum 2:1 award or international equivalence in civil engineering, other related engineering (such as chemical engineering, environmental engineering, agricultural engineering), physical science or environmental related degree programme.
- ◆ 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.
- ◆ Students who do not meet the IELTS requirement may wish to consider taking the Pre-Sessional or Pre-Masters Pathway. Full details <https://www.ucd.ie/alc/programmes/pathways/>

### International Fees and Scholarships

Tuition fee information is available on [www.ucd.ie/fees](http://www.ucd.ie/fees). Please note that UCD offers a number of graduate scholarships for full-time, self-funding international students, holding an offer of a place on a UCD masters programme. Please see [www.ucd.ie/global/scholarships/](http://www.ucd.ie/global/scholarships/) for further information.

### Related Masters Programmes of Interest

- ME Civil, Structural & Environmental Engineering
- MEngSc Structural Engineering

#### CONTACT US

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**W:** [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)