



University College Dublin  
Ireland's Global University

## MEngSc WATER, WASTE & ENVIRONMENTAL ENGINEERING (ONE YEAR FULL TIME)

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.

### WHY STUDY AT UCD?



#### Tradition

Established 1854, with 160 years of teaching & research excellence



#### Global profile

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



#### Global community

Over 6,000 international students from over 120 countries study at UCD



#### Global careers

Degrees with high employability; dedicated careers support; 2 year stay-back visa (for non-EU students)



#### Safety

Modern parkland campus with 24 hour security, minutes from Dublin city centre

### TOP INTERNATIONAL RANKING

This programme is delivered by a highly research intensive school which is in the top 200 in the QS world subject rankings.

## COURSE CONTENT AND STRUCTURE

90 credits

30 credits research project

#### Sample modules include:

- Advanced Air Pollution
- Environmental Impact Assessment
- Environmental Research Project
- Freshwater Resources Assessment
- GIS and Data Analyses
- GIS and Remote Sensing
- Hydraulic Engineering Design
- Integrated Municipal Solid Waste Management
- Introduction to Water Resources Engineering
- Quantitative Methods for Engineers
- Remote Sensing
- Science and Technology for Sustainable Development
- Systems and Geotechnics
- Unit Treatment Process in Water Engineering
- Water Waste and Environmental Modelling



## 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, NGO's), or may wish to pursue further qualifications (e.g., PhD, MBA) to become even more specialised.

Graduates will be equipped with the skills that allow them to be "lifelong learners", whether in the pursuit of knowledge for personal use or in connection with their engineering careers. 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. Some of these include:

- Arup
- Atkins
- Engineers Against Poverty
- Engineers Without Borders
- Environmental Protection Agency
- Friends of the Earth
- Greenstar
- Local Authorities
- Mazars
- McKinsey and Company
- Nicholas O'Dwyer
- RPS Group
- White Young Green



## GRADUATE PROFILE

**Tessa Clarizio**  
CRH

I pursued a Master's in Water, Waste, and Environmental Engineering at UCD due to my desire to gain an international perspective on environmental issues, UCD's strong reputation in engineering, and its relationship with my undergraduate university in the U.S. Through this course, I reinforced my knowledge on environmental engineering principles as well as enhanced my skillset through learning about green infrastructure, waste management, and software such as GIS and R. I also was able to learn about EU environmental legislation, listen to class speakers from Ireland's EPA, and visit water treatment facilities. There were a number of different research topics to pursue for my thesis as well as the possibility to propose my own topic, which speaks to the breadth of expertise and dedication present in UCD's civil engineering department. UCD's career resources and connections were likewise useful, and helped me achieve an internship with CRH's Dublin office in their sustainability group upon completion of my masters. I would recommend this program to anyone interested in furthering their skillset as an environmental engineer.

## APPLY NOW

This programme receives significant interest so please apply early online at [www.ucd.ie/apply](http://www.ucd.ie/apply)

## ENTRY REQUIREMENTS

- A 4-year bachelor's degree in a related Engineering discipline with a minimum upper second class honours (NFQ level 8) or international equivalent.
- 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.

## INTERNATIONAL STUDENTS

- Option to stay in Ireland to seek employment and/or work for 2 years after graduating
- Approved by US Dept. of Education for federally supported loans
- Apply for University non-EU Scholarships: [www.ucd.ie/international/scholarships](http://www.ucd.ie/international/scholarships)
- Apply for College of Engineering & Architecture scholarships: [www.ucd.ie/eacollege/study/noneuscholarships](http://www.ucd.ie/eacollege/study/noneuscholarships)

## RELATED MASTERS PROGRAMMES OF INTEREST

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

## FEES

Fee information is available [www.ucd.ie/fees](http://www.ucd.ie/fees)

## CONTACT US

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