University College Dublin
Ireland's Global University

MEngSc WATER, WASTE & ENVIRONMENTAL ENGINEERING (ONE YEAR FULL TIME / TWO YEARS PART 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.

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. 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.

WHY STUDY AT UCD?

Tradition
Established 1854, with 160 years of teaching and research excellence

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

Global community
Over 8,400 international students from over 140 countries study at UCD

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

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

COURSE CONTENT AND STRUCTURE

90 credits taught master's | **30 credits** research project | **60 credits** taught modules

Please see online for a full list of modules

Sample modules include:

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

Course code: T277

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. 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

APPLY NOW

This programme receives significant interest so please apply early online at 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.
- 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/

SCHOLARSHIPS

- Dedicated scholarships for non-EU students
  - Apply for University Scholarship www.ucd.ie/global/study-at-ucdscholarshipsfinances/scholarships/
  - Apply for College scholarship www.ucd.ie/eacollege/study/noneuscholarships
- Approved by US Dept of Education for federally supported loans

WORK IN IRELAND

Option to stay in Ireland to seek employment and/or work for 2 years after graduating.

FEES

Fee information is available at www.ucd.ie/fees

RELATED MASTER'S PROGRAMMES OF INTEREST

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

GRADUATE PROFILE

Sarah Nolan

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.

CONTACT US

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