

## MSc FRESHWATER QUALITY MONITORING AND ASSESSMENT

Through its global scoping exercise and bilateral discussions with the water and education sectors worldwide, the United Nations Environment Programme (UNEP) GEMS/Water Capacity Development Centre (CDC) identified a need for a flexible, advanced course for individuals involved in water quality management. In addition, the UN Agenda 2030 Sustainable Development Goal for water (SDG 6) has created a demand for knowledge, understanding and capacity in water quality monitoring and assessment. The MSc in Freshwater Quality Monitoring and Assessment builds on the existing Postgraduate Diploma and addresses these needs by enabling the development of expertise in countries through part-time, online learning. It has been specifically designed to suit people who wish to study while in employment or have other commitments that prevent full-time attendance on an educational course.

Over the first two years, students study influences on the quality of water and ecological health of freshwater bodies and all aspects of water quality monitoring including: monitoring programme design, quality assurance, data analysis and presentation, monitoring and assessment of rivers, lakes and groundwater, and water quality monitoring with biological and ecological methods and with particulate material. There is also an optional field workshop during the second year of the programme. In the third year, students carry out an individual research project on a water quality topic and submit a dissertation for the MSc in Freshwater Quality Monitoring and Assessment.

The programme aims to recruit highly-motivated, enthusiastic students who may be currently involved in water quality monitoring or seeking to specialise in water quality monitoring and assessment, and who wish to study on a flexible, part-time basis.



### Modules

The MSc is a part-time programme taken over 36 months, starting in September every second year.

Students may exit the programme with a Postgraduate Certificate after successfully completing Year 1, and a Postgraduate Diploma after competing Year 2. To be awarded the MSc, students must also complete and pass the Dissertation.

Teaching is entirely online, with the exception of module EV6004, which is an optional field-based module, and EV6010 which is the research dissertation. The research project may be carried out in the student's place of work by agreement with the Programme Co-ordinator.

### Year 1

- EV6001 Monitoring programme design for freshwater bodies (10 credits)
- EV6002 Quality assurance in freshwater quality monitoring programmes (10 credits)
- EV6003 Data handling and presentation for freshwater quality monitoring programmes (10 credits)

### Year 2

- EV6005 Monitoring and assessment of surface waters (10 credits)
- EV6007 Monitoring and assessment of groundwater (10 credits)

and any two from the following:

- EV6004 Freshwater quality monitoring in the field (5 credits)
- EV6008 Freshwater quality monitoring using biological and ecological methods (5 credits)
- EV6009 Freshwater quality monitoring with particulate material (5 credits)

### Year 3

- EV6010 Dissertation in Freshwater Quality Monitoring and Assessment (30 Credits)

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## Career Prospects

The MSc is designed to give students a strong foundation in all aspects of water quality monitoring and assessment, equipping them to work in the area of water quality management in public or private sectors, including water and environment ministries, regulatory agencies, agriculture and industry. The programme will be of particular benefit for the career advancement of employees already working in freshwater resources management.

## Eligibility and Entry

Applicants must possess a primary degree in a relevant science subject, such as a BSc in Environmental Science or cognate discipline with a minimum grade of 2H2. The number of places is limited and selection will be based on the candidate's performance in their primary degree, and a personal statement supplied with their application.

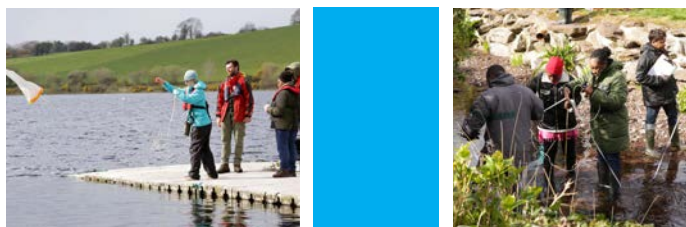
Candidates, whose primary or official language is not English, should possess an IELTS of 6.5 (or TOEFL equivalent) with no less than 6.0 in each individual category. For detailed Postgraduate English Language Requirements please see here <https://www.ucc.ie/en/study/comparison/english/postgraduate/>

Students can apply online at: <https://www.ucc.ie/en/apply/>

Details for non-EU student applications are available at: <https://www.ucc.ie/en/international/studyatucc/postgraduateprogrammes/euornoneupostgraduate/>

Nominated candidates from UNEP GEMS/Water participating countries are eligible for special reduced fees (€500 per year for Years 1 and 2 and €750 for Year 3).

Further information, including fees for all EU and Non-EU applicants can be found at: <https://www.ucc.ie/en/gemscdc/onlinecourses/>



## University College Cork and the School of Biological, Earth and Environmental Sciences

University College Cork is one of Ireland's oldest higher education institutions and internationally acclaimed as one of Ireland's leading research institutions. The School of Biological, Earth and Environmental Sciences (BEES) is a recognised leader in teaching and research in Zoology, Ecology, Plant Science, Geology and Environmental Science.



## United Nations Environment Programme GEMS/Water Capacity Development Centre

The United Nations Environment Programme GEMS/Water Capacity Development Centre was founded in 2015 to provide global capacity development in water quality monitoring and assessment to the UNEP global water quality monitoring system, GEMS/Water, through the provision of education, training and expert advice. The Centre is based in the Environmental Research Institute, UCC.

### For further information contact

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