

WATER QUALITY MONITORING: Short On-line Courses for Professional Development



These short, on-line courses are aimed at individuals involved in all aspects of freshwater quality management, staff in higher education and research, and industry staff responsible for water use, wastewater treatment and discharge. The courses, offered by the UN Environment GEMS/Water Capacity Development Centre, in conjunction with University College Cork (UCC), are particularly suitable for professionals looking to expand their knowledge in specific areas relevant to their work.

- The courses are accredited by UCC and delivered online in conjunction with the UCC Centre for Continuous Professional Development.
- Each course is twelve weeks in duration with one new lesson per week.
- The assessment for each course comprises online Multiple Choice Question tests.
- All courses run twice a year commencing in January and September each year. Applications can be made at any time but no later than six weeks prior to the start of the course.

The courses are stand-alone, credit-bearing courses at postgraduate level and may be used as credits in other appropriate degree and diploma programmes. See [here](#) for more information on ECTS Transfer of Credits.

Entry Requirements

A BSc Honours degree in Environmental Science or similar subject; or a relevant professional qualification; or a portfolio of work and experience in the area of water quality monitoring. The suitability of candidates who do not hold a BSc Honours degree will be judged on a case-by-case basis, subject to the approval of the College of Science, Engineering and Food Science in UCC. Candidates whose primary or official language is not English, must possess an overall International English Language Testing System ([IELTS](#)) score of 6.5 (or Test of English as a Foreign Language ([TOEFL](#)) equivalent) with no less than 6.0 in each individual category.



Fees

The fees for EU candidates are €400 per course and €800 for non-EU candidates. Applicants from low income countries that are part of the GEMS/Water programme should contact gemsdcdadmin@ucc.ie for more information on fees.

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Courses

EV6012 Freshwater monitoring programme design

This course introduces a step-by-step process of designing a monitoring programme. Particular focus is placed on using the objectives of the monitoring programme to define the placement of monitoring stations, methods used and parameters to be tested.

EV6013 Quality assurance for freshwater quality monitoring

To ensure data are reliable and comparable, a monitoring programme should have an associated quality assurance programme. This course investigates how to apply quality assurance processes, covering fieldwork and laboratory techniques and the different options available for both.

EV6014 Data handling, assessment and presentation for freshwater quality monitoring

This course focuses on the effective use of data acquired from monitoring water quality. Statistical techniques and the associated presentation of results are introduced, together with Geographical Information Systems (GIS) and how they can be used for data storage, analysis and presentation.

EV6015 Water quality monitoring and assessment in rivers, lakes and reservoirs

This course introduces the hydrological, biological and chemical features of river systems, lakes and reservoirs. It demonstrates how an understanding of these features is necessary for effective monitoring programme design and appropriate interpretation of water quality data.

EV6016 Water quality monitoring and assessment of groundwater

This course examines natural variations in groundwater quality and the vulnerability of groundwaters to contamination. Options for, and constraints to, developing an effective groundwater quality monitoring programme are presented.

EV6017 Alternative methods for freshwater quality monitoring

This course examines the use of biological and ecological monitoring methods for surface water quality and the key criteria for their successful use. Monitoring techniques using sediments and suspended particulate matter are also explored.

Further information

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