UN environment programme

GEMS Water

CAPACITY DEVELOPMENT CENTRE

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

WATER QUALITY MONITORING: Short Courses for Continuous Professional Development

Continuous Professional Development (CPD) modules are short courses for professionals looking to expand their knowledge in specific areas relevant to their work. These new modules offered by the UN Environment Programme GEMS/Water Capacity Development Centre, in conjunction with University College Cork (UCC), 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 modules are accredited by UCC and delivered entirely online, enabling you to study at times that suit you, in conjunction with the UCC Centre for Continuous Professional Development.
- Each module is twelve weeks in duration with two or three new lessons per week.
- The assessment for each module comprises two online Multiple Choice Question tests.

The modules are stand-alone, credit-bearing modules at postgraduate level and may be used as credits in other appropriate degree and diploma programmes. See https://ec.europa.eu 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) (https://www.ielts.org/) 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 module and €800 for non-EU candidates. Applicants from developing countries that are part of the GEMS/Water programme should contact gemscdcadmin@ucc.ie for more information as applicants may qualify for reduced fees.

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Modules

EV6012 Freshwater monitoring programme design

This module 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 module 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 module 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 module 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 module 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 Freshwater quality monitoring with biota and particulate matter

This module 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

Address: UN Environment Programme GEMS/Water Capacity Development Centre, Environmental Research Institute, University College Cork, Lee Road, Cork, Ireland

E-mail: gemscdcadmin@ucc.ie **Twitter:** @GemsWaterCDC

Web: www.ucc.ie/en/gemscdc/

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