

# DIPLOMA IN ENVIRONMENTAL AND GEOLOGICAL SCIENCES

## Overview

### NFQ Level 7, Special Purpose Award

This Diploma programme is available to students of UCC's international partner institutions with whom UCC has a bilateral agreement under Statute 263 of the National University of Ireland. Having studied for at least two years at a partner university, students will study for one year at University College Cork, taking the programme to a value of 60 credits as outlined below.

To be considered for the award of a University Diploma in Environmental and Geological Sciences, a student must have satisfactorily attended undergraduate modules to the value of **60** credits as prescribed by the Head of the School of Biological, Earth and Environmental Sciences. Students may choose Second, Third, and where permitted, Fourth year undergraduate modules (subject to timetabling and other constraints). Where a module has prerequisites (as specified in the module description), a student must satisfy this prerequisite by demonstrating, to the satisfaction of the relevant academic unit that a similar module has been passed in the partner institution. The full programme of study is subject to final agreement by the relevant UCC academic units and the student's home institution.

## Workload Guideline

It is strongly recommended that students do not take any more than 40 credits in any semester. Students are therefore advised to choose their modules so that the workload is evenly spread throughout the year.

## Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

## Programme Requirements

**Code**                      **Title**    **Credits**

Students take **60** credits from any listed below from the participating schools (subject to timetabling and other constraints):

### Modules from the School of BEES

#### *Environmental Biology and Ecology Area*

AE2001	Fundamentals of Ecology	5
AE2007	Ecological Fieldwork and Analysis	10
BL2001	Plant and Animal Genetics	5
BL3001	Zoology and Ecology Literature Review	5
BL3002	Evolution & Diversity	10
BL3003	Conservation Biology	5
PS2002	Ecological Plant Physiology	5
PS2003	Plant Identification	5
PS3008	Physiology of Plants in extreme Environments	5
ZY2000	Vertebrate Diversity	5
ZY2005	Invertebrate Diversity	5
ZY2006	Vertebrate Diversity 2	5
ZY3015	Advanced Vertebrate Biology	5
ZY3019	Adaptations to Extreme Environments	5
ZY3020	Animal Behaviour	5

The following modules are only available to students who have successfully completed three full years at their home institution:

AE4016	Advanced Ecology and Biogeography	5
PS4006	Genetic Manipulation of Plants	5
PS4021	Sustainable Plant Pest and Disease Management	5
PS4024	Crop Physiology and Climate Change	5
ZY4021	Evolutionary Ecology	5

#### *Environmental Science Area*

EV1002	Introduction to Environmental Science	5
EV2001	Practical Environmental Science	5
EV2002	The Environment and Human Health	5
EV3017	Freshwater Science	5

The following modules are only available to students who have successfully completed three full years at their home institution:

EV4002	Environmental Monitoring and Assessment	10
EV4012	Environmental Impact Assessments	5

#### *Geological Sciences Area*

GL3004	Applied Structural Geology	5
GL3006	Geology for Engineers	5
GL3007	Evolution for Geologists	5
GS2001	Dynamic Earth	5
GS2002	The Evolving Earth	5

The following modules are only available to students who have successfully completed three full years at their home institution:

GL4004	Advanced Igneous Processes	5
GL4024	Advanced Palaeobiology	5

#### **Modules from the School of Microbiology**

MB2905	Fundamentals of Microbiology	5
MB2906	Principles of Microbiology	5
MB3005	The role and ecology of microbes in the environment	5
MB3012	Transmission and Epidemiology of Infectious Diseases	5
MB3017	Themes in microbe-host interactions	5

The following module is only available to students who have successfully completed three full years at their home institution:

MB4029	Microbial Diversity and Molecular Ecology	5
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#### **Modules from the School of Chemistry**

CM1003	Introductory Chemistry for Environmental Scientists	10
CM2101	Introductory Organic Chemistry for Environmental Scientists	5
CM3024	Analytical Chemistry	10
CM3104	Environmental Chemistry and Analysis	5

The following modules are only available to students who have successfully completed three full years at their home institution:

CM4026	Advanced Analytical Chemistry Part 1	5
CM4027	Advanced Analytical Chemistry Part 2	5
CM4112	Atmospheric Chemistry and Air Pollution	5

#### **Modules from the School of Engineering and Architecture**

The following modules are only available to students who have successfully completed three full years at their home institution:

CE3009	Environmental Engineering- Wet	5
CE4007	Geotechnical Engineering	5

CE4010	Water and Wastewater Treatment	5
CE4015	Environmental Hydraulics	5
CE4020	Environmental Hydrodynamics	5

## Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

## Programme Learning Outcomes

### Programme Learning Outcomes for Diploma in Environmental and Geological Sciences (NFQ Level 7, Special Purpose Award)

On successful completion of this programme, students should be able to:

- Analyse core theories, concepts and models in the environmental and/or geological sciences disciplines;
- Demonstrate an ability to perform selected scientific techniques in the relevant discipline(s);
- Explain and communicate to various stakeholders in their discipline(s);
- Interpret and analyse data / laboratory / fieldwork results in the discipline(s);
- Communicate analysis of environmental and/or geological issues relevant to their discipline(s) through writing reports and/or participating in group discussions/presentations.