BSC (HONS) INTERNATIONAL FIELD GEOSCIENCES (FOR STUDENTS WHO ENTERED FIRST YEAR PRIOR TO 2022/23)

Overview

NFQ Level 8, Major Award

(Joint Degree between University College Cork and University of Montana)

Students entered Second Science International Field Geosciences from First Science Area of Study: Biological, Earth and Environmental Sciences (CK404) (https://ucc-ie-public.courseleaf.com/programmes/bscr/) provided they passed First Science.

Elective Modules

The selection of elective modules in Third and Fourth Years may depend on the student having the necessary prerequisites. Elective modules must, therefore, be chosen in consultation with the appropriate Head of Discipline. In exceptional cases, the Academic Board of the School of Biological, Earth and Environmental Sciences and the College will be prepared to consider applications for alternative elective modules in Third Year. Modules that have been taken and passed in one year of study may not be re-taken in a subsequent year.

The Fourth Science Research Project **must** be passed for the award of a BSc (Hons) Degree.

BSc Ordinary Degree - NFQ Level 7, Major Award

Students who pass Third Year may choose not to proceed to Fourth Year and may opt instead to be conferred with a BSc Ordinary Degree.

Programme Requirements

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

Programme Requirements

Code	Title	Credits
Year 1		
Students take **60** credits as follows:		
Core Modules		
BL1002	Cells, Biomolecules, Genetics and Evolution	5
BL1004	Physiology and Structure of Plants and Animals	5
BL1006	Habitats and Ecosystems	5
BL1009	Grand Challenges in Biological, Earth and Environmental Sciences	5
CM1003	Introductory Chemistry for Environmental Scientists	10
EV1002	Introduction to Environmental Science	5
GL1001	Introduction to Geology	5
GL1004	Geological Evolution of Ireland	5
GG1010	Introduction to Physical Geography	5
MA1001	Calculus for Science Part 1	5
PY1009	Physics for the Environmental Sciences I	5
Year 2 (2022/23 only)		
Students take **60** credits as follows:		
Core Modules		
AE2001	Fundamentals of Ecology	5
CM2101	Introductory Organic Chemistry for Environmental Scientists	5
EV2002	The Environment and Human Health	5
EV2003	Practical Data Analysis and Research Skills	5
GG2005	Ice Age Quaternary Environments and Geomorphology	5
GG2037	Introduction to Geoinformatics	5
GS2001	Dynamic Earth	5
GS2002	The Evolving Earth	5
GL2016	Easter Field Course	5
PY2009	Physics for the Environmental Sciences II	5
ST2001	Introduction to Biostatistics	5
ZY2005	Invertebrate Diversity	5
Year 3 (2023/24 only)		
Approved programmes of study at the University of Montana [1]		60
Year 4 (2023/24 and 2024/25 only)		
Students take **60** credits as follows – all listed core modules (**25** credits) and **35** credits of elective modules:		
Core GL Modules		
GL4030	Geoscience Final Year Project	20
GL4031	Frontiers in Geoscience	5
Elective Modules		
ER/GL/GS		
Students take modules to the value of **35** credits from the following:		35
ER4004	Practical Offshore Marine Science (5)	
GL3013	Sedimentary Environments (5)	
GL3031	Environmental Hydrogeology (5)	
GL4004	Advanced Igneous Processes (5)	
GL4011	Economic Geology (5)	
GL4020	Geological Work Placement (5)	
GL4023	Neotectonic Field Studies (5)	
GL4024	Advanced Palaeobiology (5)	
GS3010	Mineralogy, Igneous and Metamorphic Petrology (5)	
Total Credits		**240**

[1] This year is spent pursuing approved programmes of study at the University of Montana. Examination of the approved programmes shall be undertaken at the host institutions.

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 BSc in International Field Geosciences (NFQ Level 8, Major Award)

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

- Demonstrate mastery of the principles, concepts, and terminology of the science of geology and understand the relevance of geological principles, concepts, and terminology to the world of today;
- Read, interpret and draft geologic maps. Construct cross sections from geologic maps;
- Be able to carry out a full analysis (descriptive, kinematic and dynamic) of geological structures;
- Identify common rock-forming minerals and know the petrology of the main rock types;
- Interpret the conditions of formation of sedimentary rocks based on composition, texture and/or internal structures. Infer environments of deposition from sedimentary structures;
- Know the large-scale internal Earth processes and the features produced by them. Have a good working knowledge of the theory of plate tectonics;
- Identify common fossils and their ages as well as the conditions under which they lived and understand the methods and limitations of contemporary methods of radiometric dating;
- Understand the principles of exploration, extraction, sustainment and conservation of Earth's mineral and water resources;
- Understand the nature of environmental hazards (e.g. flooding, landslides), their monitoring and mitigation.