

# BSC (HONS) GEOLOGY (FOR STUDENTS WHO ENTERED FIRST YEAR PRIOR TO 2022/23)

## Overview

### NFQ Level 8, Major Award

Students entered Second Science Geology 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.

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

## 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.

## 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 (<https://ucc-ie-public.courseleaf.com/programmes/bscpas/>).

## Programme Requirements

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

## Programme Requirements

Code	Title	Credits
<b>Year 1</b>		
Students take <b>60</b> credits as follows:		
<i>Core Modules</i>		
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
<b>Year 2 (2022/23 only)</b>		

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)**

Students take **60** credits as follows – all listed core modules (**50** credits) and **10** credits of elective modules:

### *Core Modules*

#### *GL/GS Modules*

GS3010	Mineralogy, Igneous and Metamorphic Petrology	5
GL3004	Applied Structural Geology	5
GL3007	Evolution for Geologists	5
GL3009	Crustal Evolution of Britain and Ireland	10
GL3013	Sedimentary Environments	5
GL3030	Geological Map Interpretation	5
GL3031	Environmental Hydrogeology	5
GL3033	Advanced Field Geoscience Techniques	5
GL4011	Economic Geology	5

### *Elective Modules*

Students take modules to the value of **10** credits from the following: 10

#### *EV/GG/PS/ZY*

EV3017	Freshwater Science (5)	
GG2046	Atmosphere, Weather and Climate (5)	
GG3007	Marine and Coastal Geosciences (5)	
GG3012	Advanced Geographical Information Systems (5)	
PS2003	Plant Identification (5)	
ZY2000	Vertebrate Diversity (5)	

### **Year 4 (2023/24 and 2024/25 only)**

Students take **60** credits as follows – all listed core modules (**45** credits) and **15** credits of elective modules:

### *Core Modules*

#### *GL Modules*

GL3013	Sedimentary Environments	5
GL4004	Advanced Igneous Processes	5
GL4024	Advanced Palaeobiology	5
GL4030	Geoscience Final Year Project	20
GL4031	Frontiers in Geoscience	5
GL4011	Economic Geology	5

### *Elective Modules*

Students take modules to the value of **15** credits from the following: 15

#### *ER/GL/GG Modules*

ER4004	Practical Offshore Marine Science (5)
GL4020	Geological Work Placement (5)
GL4023	Neotectonic Field Studies (5)
GG3007	Marine and Coastal Geosciences (5)
GG3012	Advanced Geographical Information Systems (5)
GG3051	Landscape Palaeoecology and Palynology (5)
GG3056	Climate Change and Historical Climatology (5)
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<b>Total Credits</b>	<b>240</b>

## 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 Geology (NFQ Level 8, Major Award)

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

- Have competence in identifying rocks, minerals and fossils both macroscopically and microscopically in a laboratory and field environment and place them in a context of modern Geology;
- Undertake independent geological mapping in the field, recording, interpreting and reporting geological information;
- Recognise and interpret processes and forces that act to modify geological strata and rocks in the course of geological time;
- Be conversant with the principles of sedimentation and stratigraphy and the concept of geological time;
- Use geological information in conjunction with geophysical and geochemical data to address geological problems;
- Be familiar with the Earth System approach to the study of the solid earth, atmosphere and oceans in the context of geological time, climate systems and global change.