

Geology

CAO code: DN200 Option: Mathematical, Physical & Geological Sciences (MPG)



Second Year field class in the Doolough valley, Co. Mayo.

A broadly based BSc with emphasis on field courses and research projects in Ireland and abroad structured for a wide range of employment options in the Earth and Environmental Sectors

“ I really enjoyed the practical and field trip sessions – there was a lot of engaging hands-on learning. I realised that I really enjoyed the concepts of Geology and I particularly liked visualising what was going on underneath the earth’s surface based on the information that was available on the crust. It was like problem solving in 3-D with minimal information, while adhering to scientific belief. I am currently working as an Engineering Geologist with Arup. I use my background in Geology to interpret a wide variety of ground conditions which includes soil and rock mechanics, which helps geotechnical engineers design safe and environmentally sustainable projects. ”



Maria Noone, Graduate

Sample pathway for a degree in Geology *

YEAR 1

ENGAGE WITH THE PRINCIPLES

GEOLGY – Modules include:

- ▶ Introduction to Earth Sciences
- ▶ Earth Science and Materials
- ▶ Field Geology
- ▶ Earth, Environment and Society
- ▶ Earth and Humanity
- ▶ Mathematics for the Biological & Chemical Sciences
- ▶ Scientific Enquiry
- ▶ Geology and Earth Science involve applying ‘traditional’ science subjects to the study of the past, present and future of the Earth System
- ▶ Explore across the range of scientific disciplines available to study in UCD
- ▶ One Elective module
- ▶ One Small-Group Project

YEAR 2

CHOOSE YOUR SUBJECTS

The subject combinations listed below are illustrative of what a student who graduates in Geology could choose in Year 2. Further subject combinations are possible depending on the choices in Year 1. Further information is available on page 19.

GEOLGY – Modules include:

- ▶ Investigating Minerals
- ▶ Earth Structure and Geodata
- ▶ Sedimentology and Palaeobiology
- ▶ Field Geology and Mapwork
- ▶ Global Environmental Change
- ▶ Geoscience for Sustainability
- ▶ History of Life on Earth
- ▶ Medical Geology
- ▶ We do not require that students take a specific combination of additional modules
- ▶ Subject to regulations, students are free to select relevant Science modules that they are interested in
- ▶ Two Elective modules

YEAR 3

FOCUS ON YOUR CHOSEN SUBJECT

GEOLGY – Modules include:

- ▶ Geological Structures
- ▶ Sedimentary environments
- ▶ Igneous Petrology
- ▶ Geological Mapping
- ▶ Geobiology
- ▶ Geomaterials and Geoenery
- ▶ Geological Fieldwork
- ▶ Metamorphic Petrology
- ▶ Low Temperature Geochemistry
- ▶ Geosynthesis
- ▶ Professional Placement - Geosciences
- ▶ Geoscience Research Project
- ▶ Two Elective modules

YEAR 4

REFINE YOUR KNOWLEDGE

GEOLGY – Modules include:

- ▶ Igneous and Ore Geology
- ▶ Advanced Geological Mapping
- ▶ Geological Mapping Research
- ▶ Geobiology
- ▶ Applied Geophysics
- ▶ Geological Fieldwork
- ▶ Basin Analysis
- ▶ Quaternary Geology
- ▶ Emphasis on independent learning and research, including a field-based project
- ▶ Many modules contain laboratory-based projects and field-based research
- ▶ Breadth of course ensures graduates have a wide range of future career options within and outside the discipline

BSc (Honours) Geology

Other Options	PhD	Industry	Conversion Courses
<p>Our Geology graduates are routinely sought for careers outside Earth Science including:</p> <ul style="list-style-type: none"> ▶ Management consultancy ▶ Education ▶ Financial services 	<ul style="list-style-type: none"> ▶ Students can pursue a PhD in universities in Ireland or abroad in areas as diverse as hydrocarbon and mineral exploration, volcanic and earthquake hazards, palaeobiology, environmental geochemistry, geophysics and climate change 	<ul style="list-style-type: none"> ▶ Resources (oil and mineral exploration and development) ▶ Environmental consultancy companies ▶ Hydrogeology and water resources ▶ Geological Surveys, Environmental Protection Agencies ▶ Engineering Geology ▶ Oceanography and Marine Geology 	<ul style="list-style-type: none"> ▶ Master of Management

*See pages 4 and 5 for information on the terminology used above. Potential combinations shown here are examples only and are not guaranteed by UCD. Modules are subject to change each year.



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