Geology

CAO code: DN200 Option: Mathematical, Physical & Geological Sciences

Sample pathway for a degree in Geology *

YEAR 1 — ENGAGE WITH THE PRINCIPLES

GEOLOGY – *Topics include:*

- Introduction to Earth Sciences
- Earth Science and Materials
- Earth And Humanity
- Mathematics for the Sciences

MATHEMATICS – *Topics include:*

- 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

- Two Elective modules
- One Small-Group Project

YEAR 2 — CHOOSE YOUR SUBJECTS

GEOLOGY – *Topics include:*

- Earth Structure & Surface Processes
- Investigating Minerals
- Geomaterials and Geoenergy
- Field Geology
- Global Environmental Change

- 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

GEOLOGY – *Topics include:*

- Geological Structures
- Sedimentary Environments
- Igneous & Metamorphic Petrology
- Geological Fieldwork

- Applied Palaeontology
- Quantitative Geosciences
- Precambrian Geology & Geotectonics
- Low Temperature Geochemistry

- Two Elective modules

- Selected students have the opportunity to gain valuable workplace experience via an internship in commercial companies

YEAR 4 — REFINE YOUR KNOWLEDGE

GEOLOGY – *Topics include:*

- Geobiology
- Basin Analysis
- Petrology & Ore Geology
- Geological Fieldwork
- Geophysics & GIS
- Research Seminars
- Field Mapping Research Project

- 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

Other Options

MSc (Taught)

Our Geology graduates are routinely sought for careers outside Earth Science including:

- Management consultancy
- Education
- Financial services

PhD

- 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

Industry

- 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

Conversion Courses

- Master of Business Administration
- Master in 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. Topics are subject to change each year.*

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 followed my Geology BSc degree with a Masters in Environment Engineering technology. I now work in Sydney with an international engineering consultancy on large-scale contaminated land remediation projects."
Aoife McKenna, Graduate

"My Geology BSc provided me with a great understanding of geological principles, and knowledge across the spectrum of the subject. Following my degree, I secured employment with a mineral exploration company in Ireland. The strong laboratory and field components were highly enjoyable parts of the learning experience at UCD, and have been vital as my job involves exploring and prospecting in a geologically diverse region."
Cian O'Meara, Graduate

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