Geology

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

Sample pathway for a degree in Geology *

YEAR 1 — ENGAGE WITH THE PRINCIPLES

GEOLOGY
Topics include:

- Introduction to Earth Sciences
- Earth Science & Materials
- Geology in the Field
- Interactions between People, the Environment and Geology

MATHEMATICS
Topics include:

- Mathematics for the Biological & Chemical Sciences

- Two Elective modules
- One Small-Group Project

YEAR 2 — CHOOSE YOUR SUBJECTS

GEOLOGY
Topics include:

- Sedimentology
- Mineralogy & Geochemistry
- Structural Geology & Tectonics
- Field Geology
- Quantitative Geosciences
- Global Environmental Change

ENVIRONMENTAL BIOLOGY
Topics include:

- Chemistry for Biologists
- Biological Systems
- Principles of Environmental Biology and Ecology

OR

CHEMISTRY
Topics include:

- The Basis of Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry

- Two Elective modules

YEAR 3 — FOCUS ON YOUR CHOSEN SUBJECT

GEOLOGY – *Topics include:*

- Palaeobiology
- Earth Resources & Applied Geology
- Environmental Geochemistry
- Structural & Petroleum Geology

- Precambrian Geology & Geotectonics
- Igneous & Metamorphic Petrology
- Sedimentary Environments
- Field Geology & Stratigraphy

- Two Elective modules

YEAR 4 — REFINE YOUR KNOWLEDGE

GEOLOGY – *Topics include:*

- Basin Analysis
- Mapwork & Orogenic Belts
- Petrology & Ore Geology

- Geobiology
- Field Work
- Field Mapping Research Project

- Geophysics and GIS
- Research Seminars

BSc (Honours) Geology

MSc (Taught)

- MSc Petroleum Geoscience (UCD)
- MSc Hydrogeology*
- MSc Engineering Geology*
- MSc Environmental Geology*
- MSc Oceanography*
- MSc Mineral Exploration*

**Currently offered by several UK universities*

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 page 42 for more information on subject choices. 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.

- Learn about the Earth, its composition, resources and the processes that shape its surface and interior, such as climate change, earthquakes and volcanoes
- Develop the skills to become a geoscientist through field courses and research projects in Ireland and abroad

"Following my BSc degree and Master's in Environment Engineering Technology, I worked with an environmental planning consultancy in Ireland. I then relocated to the UK to work with a geo-environmental and geotechnical consultancy. I am currently enjoying living in Sydney and working with an international engineering consultancy on large-scale contaminated land remediation projects.
Aoife McKenna, Graduate"

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