



BSc in Geology – Stages 3 & 4

If you have taken **Earth Science core modules in *Stage 2*** you can choose to take ***Stage 3 & 4*** modules for a **BSc in Geology**

lawrence.amy@ucd.ie

UCD School of Earth Sciences

Geology Degree @ UCD

STAGE 1

ONE MANDATORY MODULE

GEOL10060
Introduction to Earth
Sciences

Must be taken in
STAGE 1 OR STAGE 2

GEOL10020
Earth Science & Materials

STAGE 2

TWO MANDATORY MODULES

GEOL20210
Field Geology and
Mapwork
(West of Ireland)

GEOL20250
Crystals to
Sedimentary Rocks

Must be taken in
STAGE 2 OR STAGE 3

GEOL20200
Dynamic Earth

STAGE 3

GEOL30040
Sedimentary
Environments

GEOL30240
Igneous Petrology

GEOL30350
Geological Structures

GEOL30380
Geomaterials &
Geoenergy

GEOL30250
Geological Mapping
(Mayo)

GEOL30010
Applied Palaeontology

GEOL30110
Metamorphic Petrology

GEOL30340
Low Temperature
Geochemistry

GEOL30320
Geological Fieldwork
(England)

GEOL30400
Digital Geology and GIS

STAGE 4

GEOL40190
Ore Geology

GEOL40740
Marine Geoscience

GEOL40500
Applied Geophysics

GEOL40460
Advanced Geological
Mapping

GEOL40510
Independent project

GEOL40490
Quaternary Geology

GEOL40470
Geological Fieldwork
(Spain)

GEOL40290
Basin Analysis

RECOMMENDED OPTION MODULES

Can only be taken in Stage 1

GEOL10030
Field Geology Level 1
(Antrim)

Can be taken in Stages 1 or 2

GEOL10040
Earth,
Environment and
Society

GEOL10050
Earth and
Humanity

Can be taken in Stages 1 or 2

GEOL20110
Global
Environmental
Change

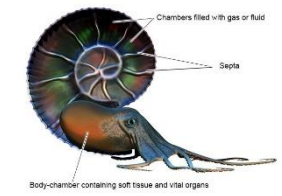
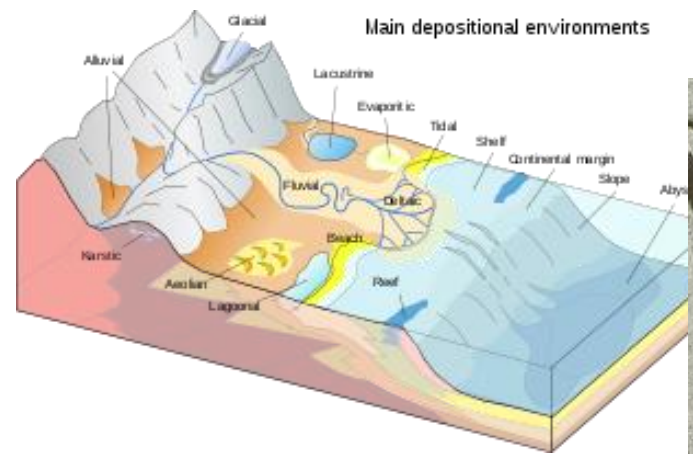
GEOL20180
Geoscience for
Sustainability

GEOL20240
Medical Geology

STAGE 3

GEOL30040
Sedimentary
Environments

GEOL30010
Applied
Palaeontology



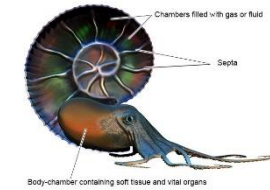
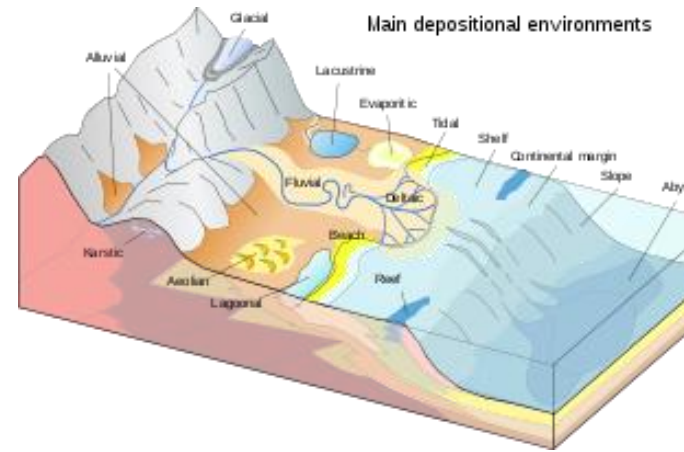
STAGE 3

GEOL30040
Sedimentary
Environments

GEOL30010
Applied
Palaeontology

GEOL30350
Geological
Structures

GEOL30340
Low
Temperature
Geochemistry



STAGE 3

GEOL30040
Sedimentary
Environments

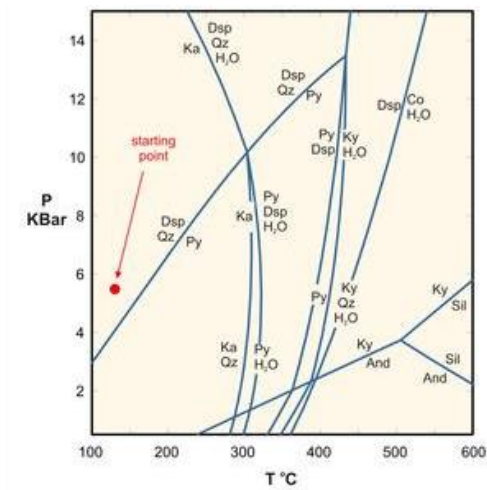
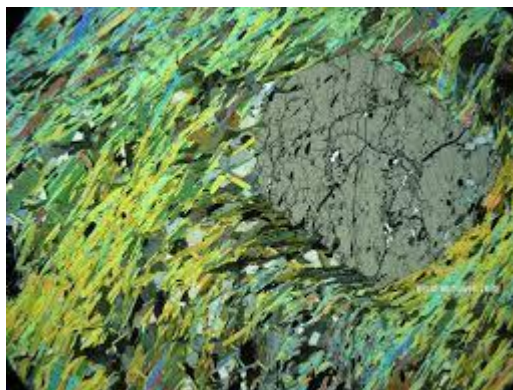
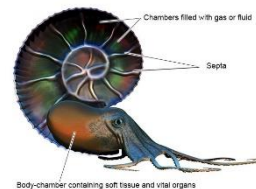
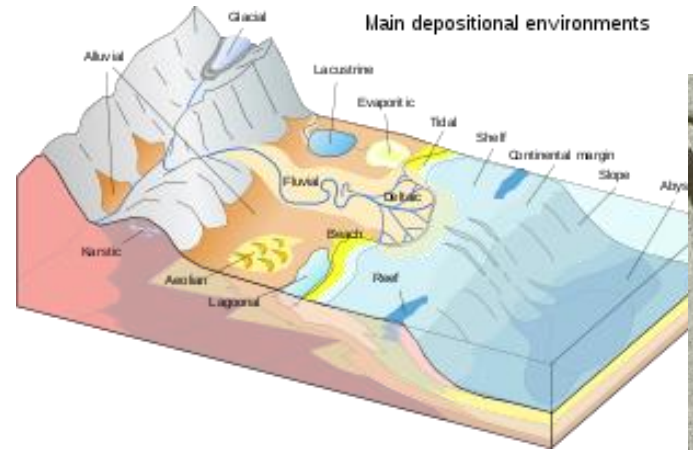
GEOL30010
Applied
Palaeontology

GEOL30350
Geological
Structures

GEOL30340
Low
Temperature
Geochemistry

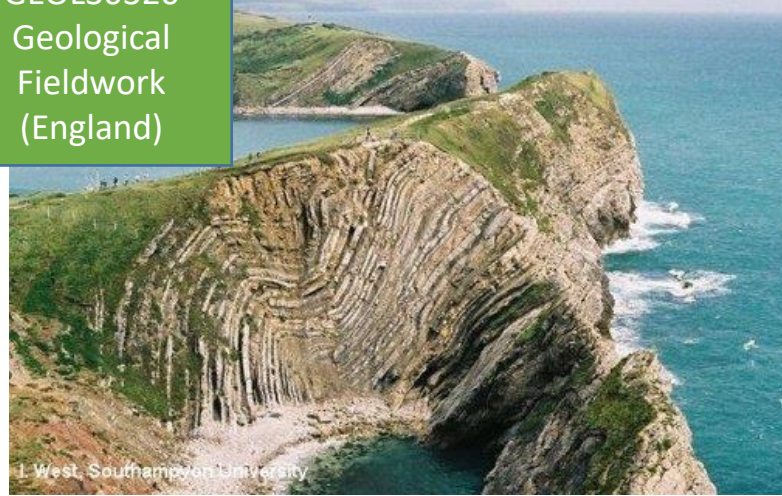
GEOL30240
Igneous
Petrology

GEOL30110
Metamorphic
Petrology



STAGE 3

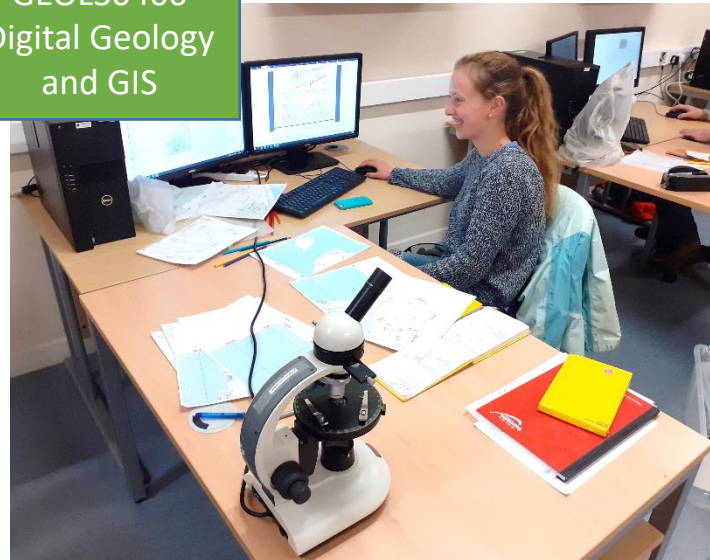
GEOL30320
Geological
Fieldwork
(England)



GEOL30250
Geological
Mapping
(Mayo)



GEOL30400
Digital Geology
and GIS



GEOL30380
Geomaterials
and Geoenergy



STAGE 4

GEOL40510
Geological Mapping
Research



Maria Noone winner of the Cunningham Award for best undergraduate mapping projects in an Irish university

GEOL40490
Quaternary Geology



GEOL40190
Ore Geology

GEOL40290
Basin Analysis

GEOL40740
Marine Geoscience

GEOL40460
Advanced
Geological Mapping

GEOL40480
Geophysics



GEOL40470
Geological
Fieldwork (Spain)




What can you do with a geoscience background?




RESEARCH, TEACHING AND COMMUNICATION

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MINING & QUARRYING

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ENERGY

[Read More](#)




ENGINEERING GEOLOGY

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ENVIRONMENTAL GEOLOGY & CONTAMINATED LAND

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HYDROGEOLOGY

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NATURAL HAZARDS AND RISK

[Read More](#)



GEOSCIENCE FOR THE FUTURE POSTER

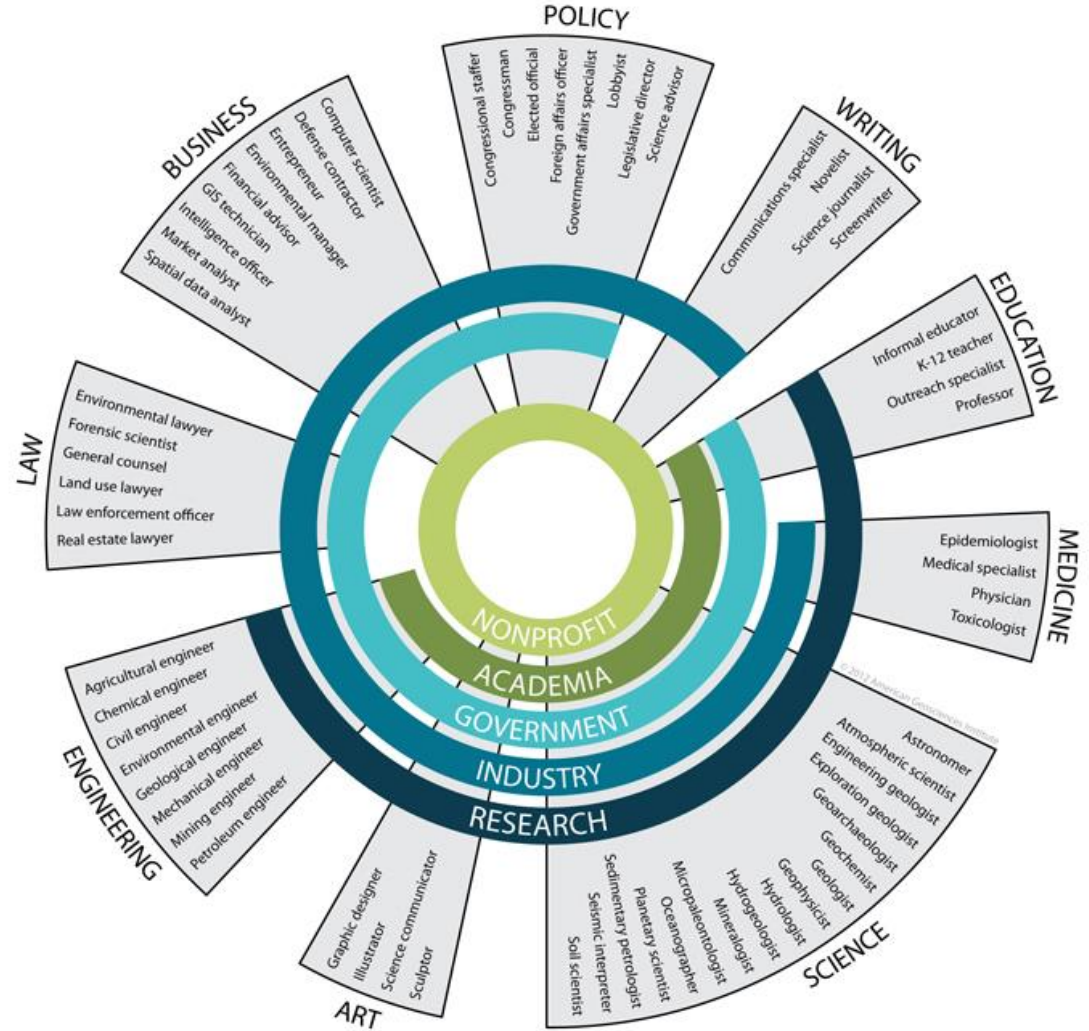
Find out what geoscience jobs are needed for a sustainable future in our [Geoscience for the Future poster](#)

OTHER JOB SECTORS

Geologists may apply their skills in a broad range of other sectors, from Forensic Geology to Charities and Aid organisations.

RELATED LINKS:

- [The Forensic Geoscience Group](#)
- [Geology for Global Development](#)



What do our undergraduates go on to do?

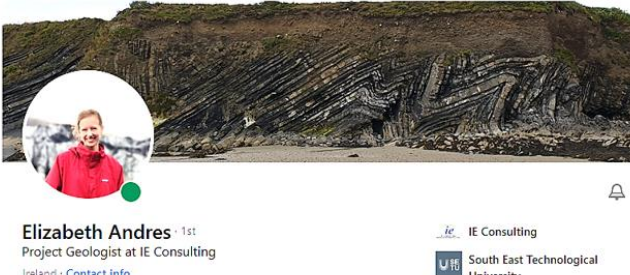
Employability of our graduates is **very good** both **within Ireland** and **overseas** (related to the large fieldwork component, emphasis on practical workplace skills, work placements, and modifying the degree to reflect employers' needs)

Our graduates are employed mainly in **geotechnical, mining, mineral exploration, hydrogeology** and **environmental** firms

Student **Work Placements** at the end of Stage 3 have lead to employment (e.g. with Arup in 2019 and 2024).

A 2024 focus group of employers emphasised the **high quality** of UCD SES graduates, their confidence and competence and the **need for more of our graduates** both **now** and in the **future**

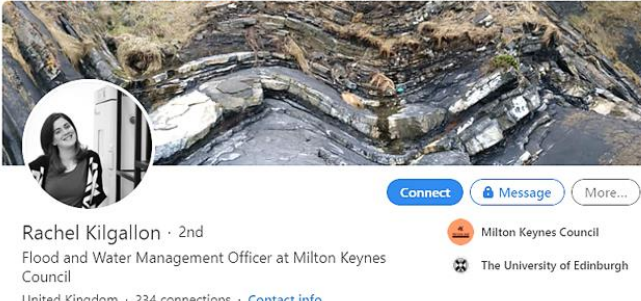
• Engineering & Environmental Science



Elizabeth Andres · 1st
Project Geologist at IE Consulting
Ireland · [Contact info](#)

IE Consulting
South East Technological University

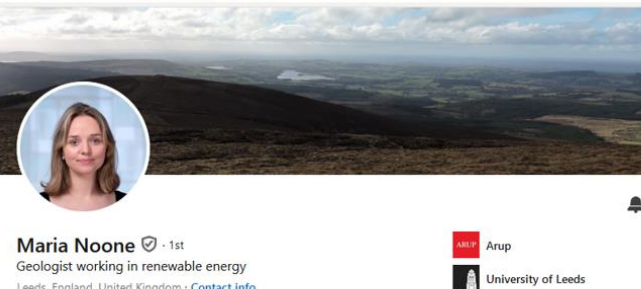
• Water / CO₂ Storage



Rachel Kilgallon · 2nd
Flood and Water Management Officer at Milton Keynes Council
United Kingdom · 234 connections · [Contact info](#)

Milton Keynes Council
The University of Edinburgh

• Renewable Energy



Maria Noone · 1st
Geologist working in renewable energy
Leeds, England, United Kingdom · [Contact info](#)

Arup
University of Leeds

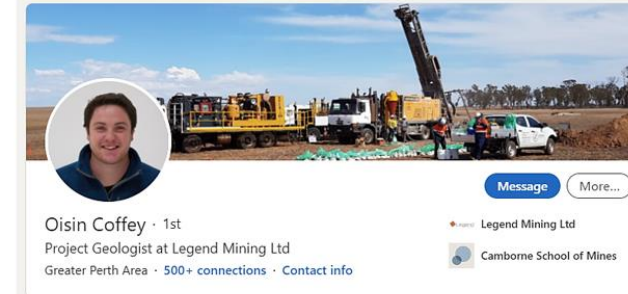
• Data Analysis & Earth Observation



Divyajyoti (DJ) Sarkar · 1st
Computational Scientist at Irish Centre for High-End Computing ICHEC
Ireland · [Contact info](#)

Irish Centre for High-End Computing ICHEC
University College Dublin

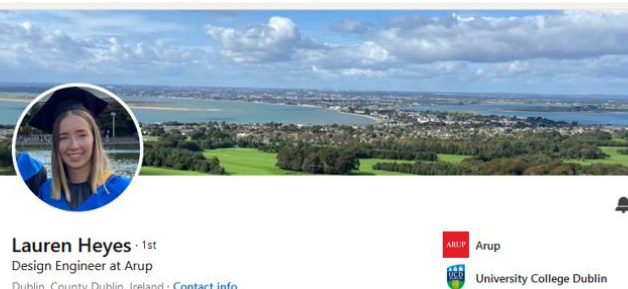
• Mineral Exploration



Oisín Coffey · 1st
Project Geologist at Legend Mining Ltd
Greater Perth Area · 500+ connections · [Contact info](#)

Legend Mining Ltd
Camborne School of Mines

• Geotechnics



Lauren Heyes · 1st
Design Engineer at Arup
Dublin, County Dublin, Ireland · [Contact info](#)

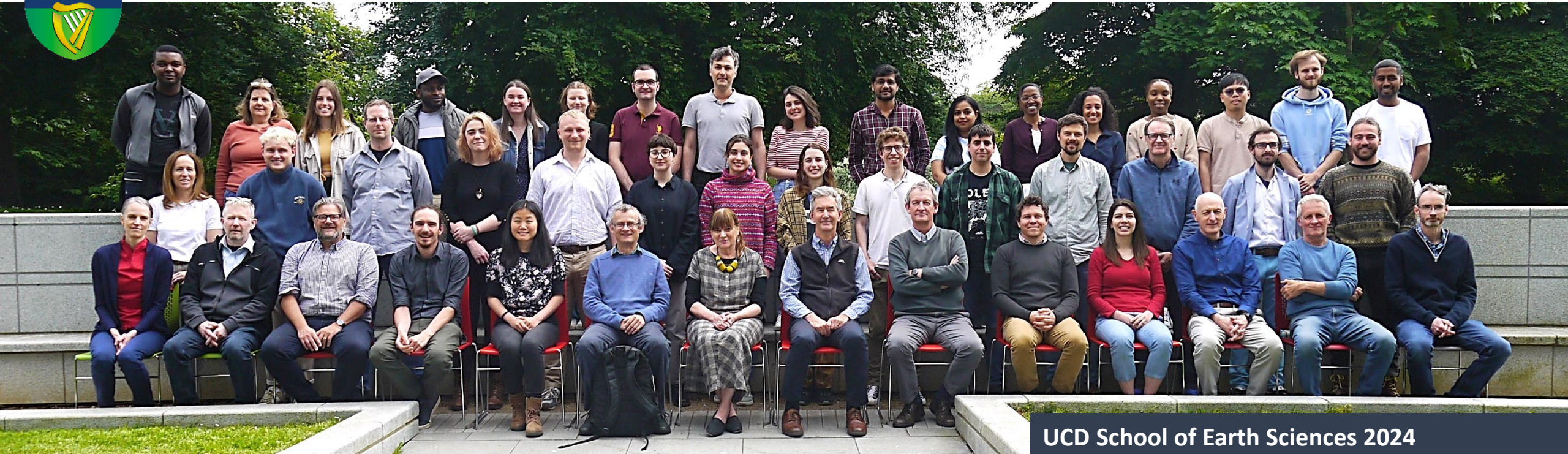
Arup
University College Dublin

Earth Science & Sustainability



• Earth Science is directly involved in achieving more than half of the UN Sustainable Development Goals (and indirectly in several more).

Who are we?



UCD School of Earth Sciences 2024

- 17 lecturers with research expertise covering a wide range of Earth Science topics
- 6 student-friendly admin/technical staff
- 10 post-doctoral researchers
- 28 graduate research students

- Host to the industry-aligned Irish Centre for Research in Applied Geosciences



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