

F662: Geophysics with Geology



Undergraduate BSc 2020

Essentials

UCAS code	F662
Degree	BSc
Mode of study	Full Time
Duration	3 years
Location	Durham City (www.durham.ac.uk/study/location/durham.city)
A-Level	AAB
BTEC	DDD
International Baccalaureate	36
Alternative qualifications	<ul style="list-style-type: none"> • Other UK qualifications (www.dur.ac.uk/resources/undergraduate/UKequivalencies2017-18.pdf) • EU qualifications (www.dur.ac.uk/resources/undergraduate/apply/EUequivalencies2017-18.pdf) • International qualifications (www.dur.ac.uk/international/country.information/)
Contextual Offers	You may be eligible for an offer which is one or two grades lower than our standard entry requirements. Find out more (www.durham.ac.uk/study/ug/apply/contextualoffers/).
More information	Still have questions? (www.durham.ac.uk/study/askus/)
Department(s) Website	www.durham.ac.uk/earth.sciences

Course Summary

Description

Geophysics is the application of physical principles to the study of the structure and dynamics of the Earth and increasingly other planets. Geophysics has many practical applications and forms an essential part of the economic exploitation of hydrocarbon and mineral resources. Geophysicists are also involved with assessing and mitigating natural hazards such as earthquakes, volcanoes and tsunamis.

The Geophysics with Geology degree shows progression from the first year through to the third year. In the first year, you share the compulsory modules with the other degree courses, but it also includes additional compulsory modules which specialise in Mathematics and Physics. In the second and third years, you deal with material that is specialist, numerically based and at the cutting-edge of geophysical research.

Graduates from this degree have secured employment across the geoscience sector, within the mineral exploration and extraction industries, in petroleum exploration companies, and with environmental and hydro-geological industries. The advanced quantitative skills developed during this course can provide a strong base for securing employment outside geoscience, for example, in finance, insurance and banking.

Year 1

Compulsory modules:

- Earth Materials
- Understanding Earth Sciences
- Field Studies
- Further Mathematics for Geoscientists
- Geoinformatics.

Year 2

Compulsory modules:

- Fieldwork (Geophysical)
- Geophysical Methods for Geoscientists
- Geophysical Data Applications
- Structural Geology and Tectonics.

Optional modules:

- Hydrology and Climate
- Igneous and Metamorphic Geochemistry and Petrology
- Sedimentary Environments and Paleoecology
- Modelling Earth Processes
- Up to two modules from another academic department.

Year 3

Compulsory modules:

- Dissertation
- Advanced Geophysics
- Earth Structure and Dynamics.

Optional modules:

- Petrology, Geochemistry and Global Tectonics
- Earth System and Climate
- Geological Evolution and Petroleum Systems of the British Isles
- Volcanology and Magmatism
- Deformation Processes of the Lithosphere
- Environmental Geochemistry
- Earth Sciences into Schools
- Environmental Management.

We review course structures and core content (in light of e.g. external and student feedback) every year, and will publish finalised core requirements for 2020 entry from September 2019.

Placement Year

You may be able to take a work placement. Find out more (www.durham.ac.uk/placements/).

Admissions Process

Subject requirements, level and grade

A level offer – AAB including two sciences from Physics, Chemistry, Geology, Geography, Economics, and Biology or Psychology. One of these science subjects must be Mathematics or Further Mathematics.

BTEC Level 3 National Extended Diploma/OCR Cambridge Technical Extended Diploma – DDD plus two science A levels from the list above.

IB Diploma score – 36 with 665 in higher level subjects, including two science subjects from the list above.

In addition to satisfying the University's general entry requirements, please note:

- We welcome applications from those with other qualifications equivalent to our standard entry requirements and from mature students with non-standard qualifications or who may have had a break in their study.
- If you do not satisfy our general entry requirements, the Foundation Programme (www.dur.ac.uk/foundation.programme/) offers multidisciplinary degrees to prepare you for a range of specified degree courses.
- If you are an international student who does not meet the requirements for direct entry to this degree, you may be eligible to take an International Foundation Year pathway programme at the Durham University International Study Centre (www.durhamisc.com/?ch=uniweb&cc=signposting&cid=uniweb&utm_source=signposting&utm_medium=signposting&utm_campaign=uniweb).
- We are pleased to consider applications for deferred entry.

Science A levels

Applicants taking Science A levels that include a practical component will be required to take and pass this as a condition of entry. This applies only to applicants sitting A levels with an English examination board.

English Language requirements

Please check requirements for your subject and level of study (www.durham.ac.uk/learningandteaching.handbook/1/3/3/)

How to apply

www.durham.ac.uk/undergraduate/apply

Information relevant to your country

www.durham.ac.uk/international/country.information/

Fees and Funding

Full Time Fees

EU Student	£9,250.00 per year
Home Student	£9,250.00 per year
Island Student	£9,250.00 per year
International non-EU Student	£25,800.00 per year

Please be advised that there is an additional fee of £130 to cover first-year fieldwork. Fieldwork costs for subsequent years are dependent on degree route and modules chosen.

The tuition fees shown for **home and EU** students are for one complete academic year of full time study and are set according to the academic year of entry. Fees for subsequent years of your course may rise in line with an inflationary uplift as determined by the government.

The tuition fees shown for **overseas** students are for one complete academic year of full time study, are set according to the academic year of entry, and remain the same throughout the duration of the programme for that cohort (**unless otherwise stated**).

Please also check costs for colleges and accommodation (www.durham.ac.uk/undergraduate/accommodation/costs/).

Scholarships and funding

www.durham.ac.uk/undergraduate/finance

Career Opportunities

AFTER DURHAM

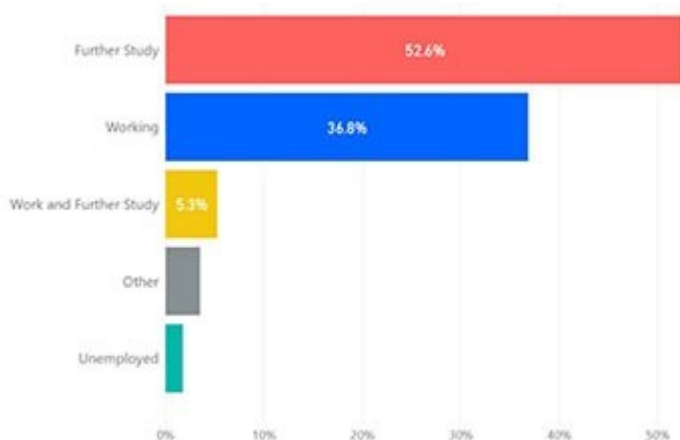


"Durham offered more than just a degree. It opened doors to opportunities which have proved invaluable in becoming a more rounded person. From the Durham University-led BP summer internship to taking a year out to work for the Environment Agency, I honed skills that I'd picked up in lectures and gained vital industry context." Rosie, 2017, ESRI UK

Earth Scientists perform *critical* roles in every society worldwide. Earth Scientists locate and manage the natural resources we need to support our energy needs, to develop new technology and progress as a society. They protect the planet from humankind's excesses, and they protect humankind from natural disasters. The UK and indeed the world needs Earth Scientists more than ever and a degree from Durham University will ensure that you are able to maximise this opportunity, develop a successful career in geoscience, and play an important part in society.

Our degrees offer the perfect start to a huge range of careers in the Earth and Environmental Sciences. Our graduates go on to secure employment within **environmental management, engineering geology, hydrology and hydrogeology, natural resource exploration and management (oil, gas, minerals), GIS, and governmental environmental agencies.**

Durham Earth Science degrees are also widely recognised as an excellent general degree qualification by a broad range of employers. Our graduates excel in *quantitative analysis, problem solving, critical thinking, teamwork, data synthesis, hypothesis testing, and in dealing with uncertainty.* Many of our graduates have successful careers as professionals in the **financial services, insurance, data analysis, accounting, management, business, and education** sectors.



Of those students that left in 2017:

- 95% are in employment or further study

Of those in employment:

- 90% are in graduate level employment
- Median salary £20,000

(Source: Destinations of Leavers from Higher Education (DLHE) survey of 2016/17 graduates. The DLHE survey asks leavers from higher education what they are doing six months after graduation. Full definitions for the DLHE Record can be found here:www.hesa.ac.uk/support/definitions/destinations)

““ The exposure to both academic and industry circles during my time at Durham was invaluable, which was greatly helped by the CeREES Geo-Energy Scholarship Programme offered by the department of Earth Sciences. The department of Earth Sciences is a highly regarded department both in terms of research and the calibre of teaching. ””
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““ BP has enjoyed a productive relationship with Durham's Department of Earth Sciences, recruiting many geologists and geophysicists over the years and working collaboratively on a number of research projects. In recent years the establishment of CeREES has seen the quantity and quality of applicants increase. The 'industry-savy' aspects of the programme equip graduate students with a wider and deeper grasp of the challenges and opportunities the energy industry affords, adding value that clearly manifests itself in the students' applications and at interview. With the recent establishment of the Durham Energy Institute I look forward to this trend strengthening. In our current intake I've been particularly pleased to see a Durham undergraduate competing successfully against those with MScs and PhDs from other leading universities. ””

Professional recognition

All but one of our degree courses are accredited by our professional body (The Geological Society of London - GSL), demonstrating that our undergraduate courses cover the range of skills expected of a trained geoscientist at this level. The Geoscience degree course (F643) is not accredited and provides a more flexible route for students who are unable to carry out the amount of fieldwork required by the GSL for accreditation.

Open days and visits

Pre-application open day

Pre-application open days are the best way to discover all you need to know about Durham University. With representatives from all relevant academic and support service departments, and opportunities to explore college options, the open days provide our prospective undergraduates with the full experience of Durham University.

Please see the following page for further details and information on how to book a place:
www.durham.ac.uk/opendays

Discover Durham Tours

Discover Durham tours offer a brief introduction to the University. The tour begins at one of our undergraduate colleges, where you will receive an introductory talk from a member of college staff, followed by a tour of the college by current students.

www.durham.ac.uk/undergraduate/live/visit/discoverdurham

Overseas Visit Schedule

www.durham.ac.uk/international/office/meetus

Department Information

Earth Sciences

Overview

Earth Science draws upon elements of physics, chemistry, mathematics, biology and physical geography. You will study the present state of the Earth to develop an understanding of the geological past. You will look at climate change, the formation of the oceans, mass extinctions, the nature of rocks and minerals, and the structure and chemistry of the Earth. Earth Science embraces the entire planet from the surface to the core and also contributes to our understanding of other planets in our solar system and beyond.

The Department is very proud of its high-quality teaching, underpinned by internationally renowned research. We are based in a purpose-built, modern building with state-of-the-art facilities for teaching and research. We welcome hard-working, motivated applicants and take pride in our graduates, who go on to a wide range of highly successful careers in the Earth Sciences, both in industry and research.

Ranking

- World Top 50 in the *QS World University Subject Rankings 2019*.
- 5th in *The Complete University Guide 2019*.
- 7th in *The Times and Sunday Times Good University Guide 2019*.

Staff

For a current list of staff, please see the Earth Sciences Department web pages (www.dur.ac.uk/earth.sciences/staff/).

Facilities

The Department has premises on the Mountjoy Site very close to the University's IT facilities and Bill Bryson Library. We have excellent equipment including: extensive computing facilities (including multimedia PCs and UNIX workstations); microscopes; TV/microscope projection facilities; four lecture/practical laboratories with comprehensive A/V facilities; extensive state-of-the-art geochemical research laboratories; a micropaleontology laboratory; a geophysics seismic research facility; extensive rock sample and thin section teaching and research collections. Our Department is designated as a mainstream centre for teaching and research covering the broad spectrum of Earth Sciences. We are a friendly, social and informal community of about 80 staff and 300 students, more than 70 of whom are working for MSc and PhD degrees. In the recent HEFCE teaching quality review, the Department was graded Excellent.

Website

www.durham.ac.uk/earth.sciences

This document was downloaded on Thursday, 22nd August 2019 at 2:25am from www.durham.ac.uk/courses/info/?id=17413&title=Geophysics%20with%20Geology&pdf.

The information relating to this course was last updated on Wednesday, 17th July 2019 at 10:24am