

# F662: Geophysics with Geology



Undergraduate BSc 2021

## Essentials

**Please note:** 2020-21 courses may be affected by Covid-19 and are therefore subject to change due to the ongoing impact of Covid-19. Summaries of course-specific changes resulting from the impact of Covid-19 will be provided to applicants during August 2020.

For the latest information on our plans for teaching in academic year 2020/21 in light of Covid-19, please see [www.durham.ac.uk/coronavirus](http://www.durham.ac.uk/coronavirus)

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

## 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.

#### Example 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.

### Example 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 2021 entry from September 2020.*

### Placement Year

You may be able to take a work placement. Find out more ([www.durham.ac.uk/placements/](http://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/](http://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=uni](http://www.durhamisc.com/?ch=uniweb&cc=signposting&cid=uniweb&utm_source=signposting&utm_medium=signposting&utm_campaign=uni))
- 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/](http://www.durham.ac.uk/learningandteaching.handbook/1/3/3/))

### How to apply

[www.durham.ac.uk/undergraduate/apply](http://www.durham.ac.uk/undergraduate/apply)

### Information relevant to your country

[www.durham.ac.uk/international/country.information/](http://www.durham.ac.uk/international/country.information/)

## Fees and Funding

### Full Time Fees

<b>EU Student</b>	£27,350.00 per year
<b>Home Student</b>	£9,250.00 per year
<b>Island Student</b>	£9,250.00 per year
<b>International non-EU Student</b>	£27,350.00 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** 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 and EU** 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/](http://www.durham.ac.uk/undergraduate/accommodation/costs/)).

### Scholarships and funding

[www.durham.ac.uk/undergraduate/finance](http://www.durham.ac.uk/undergraduate/finance)



## **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](http://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](http://www.durham.ac.uk/undergraduate/live/visit/discoverdurham)

### **Overseas Visit Schedule**

[www.durham.ac.uk/international/office/meetus](http://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 2020*.
- 4th in *The Complete University Guide 2020*.
- 4th in *The Times and Sunday Times Good University Guide 2020*.

#### Staff

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

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