GEOPHYSICS MSci / UCAS CODE: F663
2018 ENTRY

www.ucl.ac.uk/prospectus/earthsci
Geophysics MSci /

This four-year programme offers an additional year on top of the Geophysics BSc, in which students extend their knowledge and understanding by taking advanced modules and undertaking an independent research project. The programme is fully accredited by the Geological Society of London.

Key information

Programme starts
September 2018

Location
London, Bloomsbury

Degree benefits

// The programme includes up to three months of field classes in the UK and continental Europe, with financial support from the department.

// UCL has state-of-the-art geophysical instruments including the new must-do technique of ground penetrating radar (GPR), a new magnetometer/gradientometer (for archaeological and environmental surveys) and new, modern seismics.

// The programme is fully accredited by the Geological Society of London.

// World-leading research in mineral, ice and rock physics, and in geophysical hazards, is undertaken in the department and is used in the development of our modules.

Research Excellence Framework (REF) 2014
The Research Excellence Framework, or REF, is the system for assessing the quality of research in UK higher education institutions. The 2014 REF was carried out by the UK’s higher education funding bodies, and the results used to allocate research funding from 2015/16.

// 92% rated 4* (‘world-leading’) or 3* (‘internationally excellent’)

Learn more about the scope of UCL’s research, and browse case studies, on our Research Impact website.

Accreditation
This programme is accredited by The Geological Society. Undergraduate students may join The Geology Society as a Candidate Fellow and can become a Fellow of the Society upon graduation. A Fellow of the Society with relevant postgraduate experience in the practice of geology has the opportunity to apply for Chartered Geologist (CGeo) status.

Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 0.5 or 1.0 credits, adding up to a total of 4.0 credits for the year. Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 1.0 credit is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

In their first two years all students study a common geophysics syllabus covering the fundamentals of mathematics, mechanics, electricity and magnetism, Earth materials, structural geology and tectonics, global geophysics and Earth processes. Theoretical studies are integrated with a large element of illustrative practical work both in the laboratory and in the field.

In the third and fourth years there are more advanced modules in seismology, geodynamics and global tectonics and there is the opportunity to specialise in, for example, the environmental aspects of the subject such as groundwater resources.

We take a modern approach to teaching with courses based around laboratory practicals and theory workshops. Fieldwork provides a unique opportunity to develop independent and team skills and problem-solving abilities.

The first three years of the MSci programme are identical to the BSc programme. However, the additional fourth year of the MSci allows for a major individual research project and advanced optional modules, providing extra depth and breadth of knowledge.

YEAR ONE

Core or compulsory module(s)

- Classical Mechanics
- Dynamic Earth
- Earth Materials
- From Petrology to Petrogenesis (including Cornwall fieldwork)
- Mathematical Methods I
- Mathematical Methods II
- Surface Processes (including Dorset/Devon fieldwork)
- The Earth

Optional modules

- All first-year modules are compulsory.

YEAR TWO

Core or compulsory module(s)

- Electricity and Magnetism
- Global Geophysics
- Numerical Methods for Earth Sciences
- Mathematical Methods III
- Structural Geology and Tectonics

Optional modules

- You will select 1.0 credit from the following options:
  - Igneous Petrology
  - Isotope Geology
  - Maps, Images and Structures (including Italy fieldwork)
  - Surface Processes and Structures (including Pyrenees fieldtrip)
  - Principles of Climate
  - Physics of the Solar System
YOUR LEARNING

We use a mixture of lectures, practical classes, field courses, directed reading, problem-orientated learning, private study and tutorials to enable you to gain the theoretical knowledge and practical skills demanded by the programme, as well as to develop key transferable skills such as critical analysis, report writing, team working and organisational skills.

Assessment

You will be assessed by a combination of written examinations, practical examinations, coursework, independent project reports and sometimes an oral examination.

YOUR CAREER

Together with subject-specific skills, geophysics graduates have a wide range of transferable skills, developed through fieldwork, computer modelling and independent research, which are highly valued by employers in general, offering opportunities for careers in the City, commerce and government.

All our students are encouraged and helped towards making informed career choices. We have excellent relationships with many employers in diverse aspects of the Earth and planetary sciences, and students are actively guided towards achieving their potential at UCL in preparation for their future careers.

First destinations of recent graduates (2013-2015) of Geophysics programmes at UCL include:

// Geophysicist, Schlumberger
// Full-time student, MA in Geophysics at Imperial College London
// Full-time student, PhD in Earth Sciences at UCL
Entry requirements

A LEVELS
Grades
AAA-ABB

Subjects
Mathematics and Physics required.

GCSE
English Language and Mathematics at grade C. For UK-based students, a grade C or equivalent in a foreign language (other than Ancient Greek, Biblical Hebrew or Latin) is required. UCL provides opportunities to meet the foreign language requirement following enrolment, further details at: www.ucl.ac.uk/ug-reqs

IB DIPLOMA
Points
34-38 overall.

Subjects
A score of 16-18 points in three higher level subjects including Mathematics and Physics, with no score lower than 5.

OTHER QUALIFICATIONS
UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)
The Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL.

For more information see: www.ucl.ac.uk/upc.

TUITION FEES
The fees indicated are for undergraduate entry in the 2017/18 academic year and are for the first year of the programme at UCL only. Fees for 2018 entry will appear here as soon as they are available.

// UK & EU: £9,250 (2017/18 - see below)

// Overseas: £23,710 (2017/18)

The UK/EU fee quoted above may be subject to increase for the 2018/19 academic year and for each year of study thereafter and UCL reserves the right to increase its fees in line with UK government policy (including on an annual basis for each year of study during a programme). Fees for overseas students may be subject to an annual increase in subsequent years of study by up to 5%.

Please see the full details of UCL’s fees and possible changes on the UCL Current Students website.

Additional costs
Students will be required to pay for transportation to overseas field trips and food. (The department covers accommodation and transport costs in the UK.)

FUNDING
Various funding options are available, including student loans, scholarships and bursaries. UK students whose household income falls below a certain level may also be eligible for a non-repayable bursary or for certain scholarships. Please see the Fees and funding pages for more details.

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EU referendum
For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to: www.ucl.ac.uk/eu-referendum

Disclaimer
This information is for guidance only. It should not be construed as advice nor relied upon and does not form part of any contract. For more information on UCL’s degree programmes please see the UCL Undergraduate Prospectus at www.ucl.ac.uk/prospectus