Earth Sciences MSci /

Earth sciences is the study of our home planet. Our flexible programme combines ideas and principles of Physics, Chemistry, Biology, Geology and Geophysics. We explore how our planet works at depth and at the surface, the biological processes that build diversity and cause extinction, the ocean and atmospheric processes shaping climate, and issues relating to resources, geohazards and climate change.

Key information

Programme starts
September 2021

Location
London, Bloomsbury

Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 15 or 30 credits, adding up to a total of 120 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 30-credit module is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

On entry to the programme, you will select a pathway through the subject (General, Palaeobiology, or Environment and Policy). The programme includes many optional modules across UCL Earth Sciences. Students should normally take at least five half-module credits in UCL Earth Sciences each year. Modules based in other departments may be chosen from those listed for the Environmental Geoscience, Geology and Geophysics degree programmes and the Palaeobiology or Environment and Policy pathways.

The first and second years provide core skills and knowledge in the subject. The third year provides opportunities for specialisation and diversification, with an emphasis on individual initiative and problem-based learning. 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 an individual research project and advanced optional modules, providing extra depth and breadth of knowledge.

Upon successful completion of 480 credits, you will be awarded a MSci (Hons) in Earth Sciences.

Please note that the list of modules given here is indicative. This information is published a long time in advance of enrolment and module content and availability is subject to change.

YEAR ONE

Compulsory module(s)

- Dynamic Earth
- Earth Materials
- From Petrology to Petrogenesis (including Cornwall fieldwork)
- Geochemistry
- History of Life
- Surface Processes (including Dorset/Devon fieldwork)
- The Earth

Optional modules

- You will select 15 credits of optional modules from Geology, Geophysics and Environmental Geoscience programmes, and the Palaeobiology or Environment and Policy pathways.

YEAR TWO

Compulsory module(s)

- Maps, Images and Structures (including fieldwork)
- Structural Geology and Tectonics

Optional modules

- You will select 90 credits of optional modules from the Environmental Geoscience, Geology and Geophysics programmes, and the Palaeobiology or Environment and Policy pathways. Options available within the department may include: Global Geophysics; Igneous Petrology; Surface Processes and Structures (including fieldwork); Isotope Geology; Vertebrate Palaeontology and Evolution; Principles of Climate; Numerical Methods for Earth Sciences.
YEAR THREE

**Compulsory module(s)**
- All third-year modules are optional.

**Optional modules**
- You will select 120 credits of optional modules from the Environmental Geoscience, Geology and Geophysics programmes or Environment and Policy pathways. Options available within the department may include: Biodiversity and Macroevolutionary Patterns; Crustal Dynamics; Mountain Building and Basin Evolution (including Betics fieldwork); Earth Resources and Sustainability; Geological/Environmental Mapping Project; Geosciences Report; Groundwater Science; Marine Geology; Ocean Physics and Climate Change; Seismology I; Seismology II; Geodynamics and Global Tectonics; Metamorphism and Metamorphic Processes.
- Please note: the modules listed above relate to the General pathway for Earth Sciences. For specialist pathways, please see the department website.

FINAL YEAR

**Compulsory module(s)**
- Earth and Planetary System Science (including fieldwork)
- Independent MSci Project

**Optional modules**
- You will select 60 credits of optional modules from the Environmental Geoscience, Geology and Geophysics programmes or the Palaeobiology or Environment and Policy pathways depending on your programme diet. Options available within the department may include: Earth and Planetary Materials; Physical Volcanology and Volcanic Hazards; Tectonic Geomorphology; Palaeoceanography; Palaeoclimatology; Earthquake Seismology and Earthquake Hazards; Melting and Volcanism; Deep Earth and Planetary Modelling; Sustainable Management of the Environment; Advanced Biodiversity and Macroevolutionary Studies.
- Please note: the modules listed above relate to the General pathway for Earth Sciences. For specialist pathways, please see the department website.

**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.

**Accessibility**

Details of the accessibility of UCL buildings can be obtained from AccessAble. Further information can also be obtained from the UCL Student Support & Wellbeing team.

**Your career**

You will develop both discipline-based and highly sought after analytical skills, together with practical skills such as planning, conducting and reporting on investigations, collecting, recording and analysing data and the ability to undertake field and laboratory research.

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.

**Your application**

Application for admission should be made through UCAS (the Universities and Colleges Admissions Service). Applicants currently at school or college will be provided with advice on the process; however, applicants who have left school or who are based outside the United Kingdom may obtain information directly from UCAS.

We will assess your application on the basis of your performance, or predicted performance academically, but we will also be looking for an indication of how your interest in natural and Earth sciences has developed, what aspects particularly appeal to you, and whether you have undertaken any research or reading to find out about the subject matter you wish to study.

We normally reach a decision on making an offer on the basis of the application alone. If you are resident in the UK and have been made an offer you will be invited to an applicant open day. This visit will include introductory talks on UCL Earth Sciences and our degree programmes, a tour of the department and UCL and a question and answer session.
Entry requirements

**A LEVELS**
Standard Offer: AAB. Two sciences preferred.
GCSE: English Language and Mathematics at grade C or 5. For UK-based students, a grade C or 5 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.

Contextual Offer: BBB. Two sciences preferred.
GCSE: English Language and Mathematics at grade C or 5. For UK-based students, a grade C or 5 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.

**GCSE**

**IB DIPLOMA**
Standard Offer: 36 points. A score of 17 points in three higher level subjects to preferably include two sciences, with no score lower than 5.

Contextual Offer: 32 points. A score of 15 points in three higher level subjects to preferably include two sciences, with no score lower than 5.

**IB DIPLOMA**

**CONTEXTUAL OFFERS – ACCESS UCL SCHEME**
As part of our commitment to increasing participation from underrepresented groups, students may be eligible for a contextual offer as part of the Access UCL scheme. For more information see www.ucl.ac.uk/prospectus.

**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)**
UCL 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 2021/22 academic year. The UK fees shown are for the first year of the programme at UCL only. Fees for future years may be subject to an inflationary increase. The Overseas fees shown are the fees that will be charged to 2021/22 entrants for each year of study on the programme, unless otherwise indicated below.

// UK: £9,250 (2021/22)
// Overseas: £31,200 (2021/22)

Full details of UCL’s tuition fees, tuition fee policy and potential increases to fees can be found on the UCL Students website.

**ADDITIONAL COSTS**
The department makes a substantial contribution towards fieldwork costs (ranging between £150-800 per student per trip), covering all accommodation and in-field transportation for all fieldwork which is organised by the department. The majority of the fieldtrips include breakfast and/or dinner. Some fieldtrips in the second year are self-catered. Students are expected to cover their transportation to and from the beginning of the field location for some of the 2nd and 3rd year non-UK field trips (cost of a return flight/train or bus), at an estimated cost of £200-£400. In the third year, there is an optional fieldtrip for 30 days of independent mapping. For this fieldtrip, the department provides a cheque for £800 to each student. In the fourth year, there is a 4-day trip to Germany. Students are expected to cover their transport to Germany (~£150). In-field transportation and accommodation (half-board) are covered by the department.

A guide including rough estimates for these and other living expenses is included on the UCL Fees and funding pages. If you are concerned by potential additional costs for books, equipment, etc., please get in touch with the relevant departmental contact (details given on this page).

**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.

**CONTACT**
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UK withdrawal from the EU
For up-to-date information relating to specific key questions following the UK’s withdrawal from the EU, please refer to: www.ucl.ac.uk/brexit.