Earth Sciences MSci

This four-year programme provides an additional year on top of the Earth Sciences BSc, in which you undertake an independent research project, extend your knowledge with advanced modules related to your specialist pathway, and join in a wide-ranging seminar series on Earth and Planetary System Science.

Key information

Programme starts
September 2019

Location
London, Bloomsbury

Degree benefits

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

// The holistic nature of the Earth sciences is emphasised. The opportunity to specialise within Earth sciences and, by the appropriate choice of modules, graduate with a degree in Earth Sciences (Palaeobiology) or Earth Sciences (Environment and Policy) is available.

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

// World-class facilities include hosting the UK’s only NASA Regional Planetary Image Facility, use of the UCL University of London Observatory, and collaboration with the Natural History Museum.

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.

YEAR ONE

Core or 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

Core or 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
// Isotope Geology
// Vertebrate Palaeontology and Evolution
// Principles of Climate
// Numerical Methods for Earth Sciences
YEAR THREE

Core or 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 Palaeobiology 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
  - Palaeontology I
  - Palaeontology 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

Core or 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 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
  - 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.

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.

Data taken from the 'Destinations of Leavers from Higher Education' survey undertaken by HESA looking at the destinations of UK and EU students in the 2013-2015 graduating cohorts six months after graduation.

First destinations of recent graduates (2013-2015) from this programme at UCL include:

- Assistant Geologist, Geotechnical Consulting Group
- Business Analyst in Technology Consulting, Deloitte
- Full-time student, PGCE in Geography at UCL

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.
A LEVELS
Standard Offer: AAB. Two sciences preferred.
Contextual Offer: BB. 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-requirements

IB DIPLOMA
Standard Offer: 36. A score of 17 points in three higher level subjects
to preferably include two sciences, with no score lower than 5.
Contextual Offer: 32. A score of 15 points in three higher level subjects
to preferably include two sciences, with no score lower than 5.

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 2019/20
academic year. The UK/EU 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 2019/20 entrants for each year of study on the
programme, unless otherwise indicated below.

// UK & EU: £9,250 (2019/20)
// Overseas: £26,740 (2019/20)

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
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/ucl-and-europe

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