Natural Sciences BSc

The Natural Sciences BSc draws together elements of physics, mathematics, chemistry, astrophysics, Earth sciences, life sciences, and science and technology studies. The programme enables students who wish to maintain a breadth of science subjects to design a unique degree which is suited to their personal interests.

Key information

Programme starts
September 2018

Location
London, Bloomsbury

Degree benefits

- The unique core stream structure provides you with module options from across the spectrum of science disciplines.
- You may broaden your knowledge further by taking optional modules in non-science subjects such as languages, management studies, computing and statistics.
- While the programme offers a high level of flexibility, the core streams offer you a structured pathway to enable specialisation.
- All members of our teaching staff are experts in their various fields and are active in research, so you will benefit from their cutting-edge knowledge in your lectures and tutorials.

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.

Interdisciplinary programme: see contributing departments

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

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).

The programme is divided into two main subjects or streams, which are chosen in the first year and followed for the duration of the programme. One will become your major stream, while the other will become your minor stream.

All students undertake a mathematics module and three foundation modules in the first year. Equal weighting is applied to the major and minor stream in the first and second years. During the final year of the BSc, the balance of study shifts towards your chosen major stream whilst you still continue with the minor stream.

Certain streams may have prerequisites of particular grades and/or subjects at A level or equivalent; further details can be found on the Natural Sciences website.

YEAR ONE

Core or compulsory module(s)

- The first term comprises a compulsory mathematics module and foundation modules introducing the streams that are offered. You will select three foundation modules from the following:
  - Chemistry
  - Earth Sciences
  - Life Sciences
  - Mathematics and Statistics
  - Physics and Astronomy
  - Science and Technology Studies

Core streams

- In your second term you will choose two core streams from the following areas:
  - Astrophysics
  - Biomedical Science
  - Earth and Environment
  - Genetics, Evolution and Environment
  - Geophysical Sciences
  - History and Philosophy of Science**
  - Inorganic and Materials Chemistry
  - Mathematics and Statistics*
  - Medical Physics
  - Molecular and Cell Biology
  - Organic Chemistry
  - Neuroscience and Psychology
  - Physical Chemistry
  - Physics
  - Policy, Communication and Ethics**

*"May only be pursued as a minor stream after year two
**"May only be pursued as a major stream in the BSc; MSci students may only take it as a minor.

YEAR TWO

Core streams

- You will take modules in your two core streams. Both streams have equal weighting, amounting to 1.5 credits of core (mandatory) modules per stream, plus a compulsory Scientific Communication and Computing module. At the end of the second year, you will choose one of the streams as a major stream.

Optional modules

- You can select one optional module, worth 0.5 credits. This can be taken outside the main Natural Sciences subject areas, for example in foreign languages, management, etc.
Final Year

Core Streams

- Major stream: You will take 2.0 credits in your major stream including a compulsory literature review (0.5 credits).
- Minor stream: You will take 1.5 credits in your minor stream.

Optional Modules

- You can select one optional module worth 0.5 credits.

Your learning

A variety of teaching methods are employed including lecture classes, practical sessions and small-group tutorials. In addition to around 25 hours of lectures and library classes each week, you will be expected to spend a substantial amount of time on coursework and private study. The Earth Sciences stream will include field classes and the Astrophysics stream will include observational work.

Assessment

Assessment is primarily through end-of-year examinations for lecture-based modules, whereas practical work is continuously assessed. Coursework is important and must be passed to allow progression from one year to the next.

Your career

The programme provides an all-round scientific education in its own right. On completion of your degree, you will have cultivated transferable skills and the ability to solve problems in a quantitative way and to see science in a modern context.

You could choose to specialise in a defined, but usually interdisciplinary, science field and proceed to study for a wide range of possible postgraduate degree and doctoral programmes. Alternatively, you will be equipped to pursue many career options, for example, as a scientific journalist, in science teaching, as a management consultant or in finance and banking.

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

- Technical Consultant, IBM
- Operations Analyst, J.P. Morgan
- Full-time student, Dentistry (Graduate Entry), King’s College London
- Surface Transport Graduate, Transport for London (TfL)
- Full-time student, PhD in Mathematics Genomics and Medicine at the University of Cambridge

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.

In addition to essential academic requirements, we are looking for evidence of your motivation to pursue a degree in Natural Sciences. This could be demonstrated through examples of any relevant work.

Experience, attendance at scientific exhibitions or festivals, or from details of academic project work in which you have been involved.

If you are based in the UK and your application demonstrates you have the potential to meet our academic requirements, you will normally be invited to a departmental open day. This will be relatively informal and will give you the opportunity to meet with staff and current students, and to see UCL.
Entry requirements

A LEVELS
Grades
A*A-AAA

Subjects
Any two subjects from Biology, Chemistry, Geology, Mathematics or Physics.

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
38-39 overall.

Subjects
A score of 18-19 points in three higher level subjects including two from Biology, Chemistry, Mathematics or 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.

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