This four-year programme offers an additional year on top of the Chemistry BSc, in which you may specialise further and deepen your knowledge by undertaking advanced modules and research projects.

### Key information

**Programme starts**
September 2020

**Location**
London, Bloomsbury

### Degree benefits

- Consistently regarded as one of the best chemistry departments in the UK, we offer you an excellent education with high standards of teaching.
- You will benefit from our outstanding research profile as you are taught by lecturers who are experts in a wide range of chemistry-related fields.
- The MSci allows you to study more advanced topics and to work on an extended research project within one of our internationally renowned research groups.
- We offer access to state-of-the-art facilities, enhanced by our strong affiliation to other centres of excellence such as the London Centre for Nanotechnology.

### Accreditation

The Royal Society of Chemistry accreditation is a peer review process founded on the judgement of professional chemists. It provides a structured mechanism to assess, evaluate, and enhance the quality of degree programmes and demonstrates a commitment to continuous improvement.

### 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).

Chemistry is offered either as a three-year BSc or as a four-year MSci. The first two years of study are identical, so you can defer which to opt for until the end of your second year. We advise you to select the four-year MSci programme initially as this keeps more options open.

In the first year, all students take the module 'Introduction to Chemical Principles'. This serves to consolidate A level (or equivalent) Chemistry and generate an awareness of modern chemistry as an integrated whole.

Along with your optional modules, you'll also take a module in mathematics that's appropriate to your ability.

In the second year, the three main themes of chemistry are again developed in individual modules, leaving you free to choose two options, which can be either chemical or non-chemical.

In the third year you will have considerable scope to develop your own portfolio of interests, through a range of optional modules. The core unit, 'An Introduction to Research Methods' is a sound preparation for extended personal research projects in the fourth year, and you will also complete a literature project.

In the final year you will undertake a chemical research project and optional modules, allowing you to specialise in the field of chemistry of your choice.

#### YEAR ONE

<table>
<thead>
<tr>
<th>Core or compulsory module(s)</th>
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<tbody>
<tr>
<td>Basic Inorganic Chemistry</td>
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<td>Basic Organic Chemistry</td>
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<tr>
<td>Basic Physical Chemistry</td>
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<tr>
<td>Introduction to Chemical Principles</td>
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<td>Chemical Skills</td>
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**Optional modules**

You will select a Mathematics module appropriate to your level of qualification and will select either modules from a wide range of options. Options typically taken by chemistry students include:

- Biology
- Human Physiology
- Introduction to Earth Sciences
- Introduction to Management Languages
- Mathematics (further calculus)
- Physics of the Universe
YEAR TWO
Core or compulsory module(s)
- Principles of Inorganic Chemistry
- Principles of Organic Chemistry
- Principles of Physical Chemistry

Optional modules
- You will select either one or two of the following modules:
  - Chemical Dynamics
  - Chemistry of Materials
  - Reaction Mechanisms in Chemical and Biological Systems
- Plus further modules from a wide range. Options typically taken by Chemistry students include:
  - Biology
    - Human Physiology
    - Introduction to Earth Sciences
    - Introduction to Management
  - Languages
  - Mathematics (further calculus)
  - Physics of the Universe

YEAR THREE
Core or compulsory module(s)
- Advanced Topics in Inorganic Chemistry
- Advanced Topics in Physical Chemistry
- An Introduction to Research Methods
- Literature Project
- Principles and Methods of Organic Synthesis

Optional modules
- You will select modules from a wide range of advanced chemistry options and other approved undergraduate options. Chemistry options may include:
  - Biological Chemistry/Biological Macromolecules
  - Concepts in Computational and Experimental Chemistry
  - Inorganic Rings, Chains and Clusters
  - Numerical and Analytical Methods
  - New Directions in Materials Chemistry
  - Organometallic Chemistry
  - Pathways, Intermediates and Function in Organic Chemistry
  - Principles of Drug Design
  - Structural Methods in Modern Chemistry

FINAL YEAR
Core or compulsory module(s)
- Advanced Chemical Research Project

Optional modules
- You will select 4 modules from a wide range of advanced chemistry options and other approved undergraduate options. Chemistry options may include:
  - Frontiers in Experimental Physical Chemistry
  - Intense Radiation Sources for Chemistry
  - Advanced Topics in Energy Science and Materials
  - Numerical and Analytical Methods
  - Stereocnthetic Control in Asymmetric Total Synthesis
  - Structural Methods in Modern Chemistry
  - Synthesis and Biosynthesis of Natural Products
  - Topics in Quantum Mechanics

Your learning
Your learning will combine lectures, practical classes and group workshops. In addition you will attend tutorials in groups of four to six students which provide specialised support for the core modules.

Assessment
Modules usually involve at least two methods of assessment; coursework (problem sheets, essays or poster presentations), an examination, or lab classes. Feedback, such as face-to-face marking in laboratories, is always provided. Your final-year project will be assessed through a written report, a presentation and an oral examination.

Your career
As a UCL Chemistry graduate you will have developed both discipline-based and highly sought after analytical skills, for example in logical thought and numeracy.

On completion of your degree you will have the obvious option of pursuing a career within the chemical industry. This is recognised as one of the most exciting and successful contributors to the UK economy, for example in the pharmaceutical, biotechnology and nanotechnology sectors.

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.
Entry requirements

**A LEVELS**

*Standard Offer:* AAA. Chemistry and one of Biology, Physics or Mathematics required.

*Contextual Offer:* AAB. Grades AA in Chemistry and one of Biology, Physics or Mathematics required.

**GCSE**

English Language at grade C or 5, plus Mathematics at grade B or 6. 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

**IB DIPLOMA**

*Standard Offer:* 38 points. A score of 18 points in three higher level subjects including 6 in Chemistry and 6 in one of Biology, Physics or Mathematics, with no score lower than 5.

*Contextual Offer:* 36 points. A score of 17 points in three higher level subjects including 6 in Chemistry and 6 in one of Biology, Physics or Mathematics, 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**

If you are concerned by potential additional costs for books, equipment, etc. on this programme, please get in touch with the relevant departmental contact (details given on this page).

**FUNDING**

UCL Chemistry offers a number of scholarships which will be advertised on the departmental website as appropriate.

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**

Dr Dejan-Kresimir Bucar

Email: admissions.chem@ucl.ac.uk

Telephone: +44 (0)20 7679 4511

Department: Chemistry

**Brexit**

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/brexit

**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