LONDON’S GLOBAL UNIVERSITY

CHEMISTRY (INTERNATIONAL PROGRAMME) MSci /
UCAS CODE: F105
2018 ENTRY

www.ucl.ac.uk/prospectus/chemistry
This four-year programme provides a complete education in chemistry together with the option of taking modules in other areas, and the opportunity to spend a year abroad studying at a selected university in Australia, Canada or the USA.

**Key information**

**Programme starts**
September 2018

**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.
- You will have an opportunity to study at a selected North American or Australian University during the third year of your programme.
- 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.

**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.

- 94% 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.

**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 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. In the second term the fundamentals of organic, inorganic and physical chemistry are introduced separately. 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 optional modules, which can be either chemical or non-chemical.

You will spend the third year at an overseas university in an English-speaking country, for example the California Institute of Technology (Caltech) or the University of Toronto. The third-year modules are primarily lecture-based, and are taught in English.

In the final year of the MSci, 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>
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<tr>
<th>Core or compulsory module(s)</th>
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<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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**Optional modules**

- You will select a Mathematics module appropriate to your level of qualification to the value of either 1.0 or 0.5 credits, and will select either 0.5 or 1.0 credits from a wide range of options. Options typically taken by chemistry students include:
  - Mathematics (further calculus)
  - Biology
  - Human Physiology
  - Physics of the Universe
  - Introduction to Earth Sciences
  - Introduction to Management
  - Languages

**YEAR TWO**

<table>
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<th>Core or compulsory module(s)</th>
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<tr>
<td>Principles of Inorganic Chemistry</td>
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<tr>
<td>Principles of Organic Chemistry</td>
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<tr>
<td>Principles of Physical Chemistry</td>
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**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 Management
  - Introduction to Earth Sciences
  - Languages
  - Mathematics (further calculus)
  - Physics of the Universe
YEAR THREE

Year abroad

You will spend your third year abroad at an approved university.

FINAL YEAR

Core or compulsory module(s)

Advanced Chemical Research Project

Optional modules

You will select 2.0 credits from a wide range of advanced chemistry options and other approved undergraduate options. Chemistry options may include:

- Frontiers in Experimental Physical Chemistry
- Inorganic Rings, Chains and Clusters
- Intense Radiation Sources for Chemistry
- Microstructural Control in Materials Science
- New Directions in Materials Chemistry
- Numerical and Analytical Methods
- Organometallic Chemistry
- Stereochemical 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.

First career destinations of recent graduates (2013-2015) of UCL Chemistry programmes include:

- Analyst, Centrica Plc
- Trainee Actuary, Generali Worldwide
- MRes in Molecular Modelling and Materials Science, UCL
- PhD in Non-Equilibrium Systems, King’s College London

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.

Together with essential academic requirements, we are looking for strong evidence in your personal statement of your interest in the subject and your understanding of it. These requirements may be evidenced by examples of project work, relevant work experience or, perhaps, through your knowledge of current events involving chemistry. We also look for your ability to communicate clearly in English.

UK-based applicants who demonstrate their potential to meet our academic requirements will be invited to visit UCL for a day. The day will include talks, the opportunity to meet current students and a tour of the department and UCL. You will also attend a university-level lecture.

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.
Entry requirements

A LEVELS
Grades
AAA

Subjects
Chemistry and either one science subject 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
Points
38 overall.

Subjects
A total of 18 points in three higher level subjects including Chemistry and either Mathematics or a science, with no score below 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 2018/19 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. The Overseas fees shown are the fees that will be charged to 2018/19 entrants for each year of study on the programme, unless otherwise indicated below.

// UK & EU: £9,250 (2018/19)
// Overseas: £25,960 (2018/19)

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

FUNDING
UCL Chemistry offers a number of scholarships, including the Bader Bursaries, GSK Bursary, UCL Chemistry Entrance Scholarships and the Kathleen Lonsdale Bursary.

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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Department: Chemistry

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