LONDON'S GLOBAL UNIVERSITY

UCL

CHEMISTRY

UNDERGRADUATE ENTRY 2011

Chemistry degree programmes

Admissions Tutor
Dr Dewi Lewis
Department of Chemistry
University College London
Christopher Ingold Laboratories
20 Gordon Street
London WC1H 0AJ

WEB www.chem.ucl.ac.uk
EMAIL d.w.lewis@ucl.ac.uk
TEL +44 (0)20 7679 4779

UCL degree enquiries

Study Information Centre
University College London
Gower Street
London WC1E 6BT
United Kingdom

EMAIL study@ucl.ac.uk
TEL +44 (0)20 7679 3000

Applications

UCAS
Rosehill
New Barn Lane
Cheltenham
Gloucestershire GL52 3LZ
United Kingdom

WEB www.ucas.com
TEL +44 (0)871 468 0468

Accommodation

UCL Student Residences
University College London
117 Gower Street
London WC1E 6AP

WEB www.ucl.ac.uk/accommodation
EMAIL residences@ucl.ac.uk
TEL +44 (0)20 7679 6322

International students

UCL International Office
University College London
Gower Street
London WC1E 6BT
United Kingdom

WEB www.ucl.ac.uk/international
EMAIL international@ucl.ac.uk
TEL +44 (0)20 7679 7765
FAX +44 (0)20 7679 3001

CHEMISTRY

Undergraduate entry 2011

UCL UCAS Code: UCL U80

F101
Chemistry MSci 4 years

F105
Chemistry (International Programme) MSci 4 years

F100
Chemistry BSc 3 years

F323
Chemical Physics MSci 4 years

F320
Chemical Physics BSc 3 years

F1RX
Chemistry with a European Language MSci 4 years

F1R9
Chemistry with a European Language BSc 3 years

F1GC
Chemistry with Mathematics MSci 4 years

F1G1
Chemistry with Mathematics BSc 3 years

F1NF
Chemistry with Management Studies MSci 4 years

F1N2
Chemistry with Management Studies BSc 3 years

F153
Medicinal Chemistry MSci 4 years

F150
Medicinal Chemistry BSc 3 years

CONTENTS

3 Welcome to UCL and to the Chemistry degree programmes

3 Key facts

4 What do we offer?

8 Your degree

16 Your learning

17 Living

19 Your application

24 Your career

WELCOME

to UCL and to the Chemistry degree programmes

Your choice of which degree programme to study, and which university to study at, is an important and personal decision. It will influence the next few years of your life as you study, and consequently shape your future life and career.

In selecting subjects and universities you need to be well-informed, with access to reliable and up-to-date facts. In the following pages we describe degree content and structure, the specialist resources and expertise you will access, and the skills you will develop, and aim to provide an authentic insight into student life at one of the world's top universities.

Key facts

- A friendly community environment with personal academic and pastoral care from staff
- Flexible degree programmes allowing you to tailor your studies to develop your own specialisms
- You will **discover** something new in your MSci research project, which is half of your final year
- Spend a year abroad on our Chemistry with a European Language MSci and Chemistry (International Programme) MSci degree programmes
- The noble gases were discovered here by Sir William Ramsay
- The longest running student science society in the country in the oldest chemistry department in England.

What do we offer?

I'd like to take this opportunity to introduce you to UCL and specifically to the Chemistry Department – one of the strongest in the UK and a stimulating, invigorating and friendly atmosphere in which to study.

UCL Chemistry offers you the chance to study in the heart of London at one of the country's top universities and in one of the leading chemistry departments, with excellent teaching and research facilities. But perhaps the department's greatest asset is its young and enthusiastic staff, who are keen to share their knowledge and enthusiasm for the subject with you.

For you, the next few years will be exciting and rewarding. Studying at university is a once-in-a-lifetime opportunity and the decisions you make – both your choice of university and the programme you hope to study – are important ones. In compiling this booklet we've tried to give you as much information as possible to help with these decisions. However, for more information, log on to our departmental website at www.chem.ucl.ac.uk or contact our Admissions Tutor, Dr Dewi Lewis, by email at d.w.lewis@ucl.ac.uk

I wish you good luck on this exciting voyage and hope to see you soon in the department.

Professor Ivan Parkin
Head of Chemistry

Why study chemistry?

Ever wondered why onions make you weep? Why mercury is a liquid? Why the ozone layer is so important to us? Can we prevent global warming? How can we power a car safely with hydrogen? From the seemingly trivial to matters of global importance, welcome to chemistry!

The study of chemistry not only gives you the answers to these and many other questions, it provides you with a toolbox with which to devise and find answers to the important challenges facing our ever-changing world.

The alchemists

Chemistry originally developed through the pioneering work of alchemists who, during the Renaissance, tried to turn base metals such as lead and mercury into silver and gold. This now sounds like madness, but these were the leading minds of the day and their art combined a system of philosophy that dealt with the mysteries of life and the formation of inanimate

substances – chemicals. Hennig Brandt was one such practitioner of this art and remarkably, in 1669 he managed to isolate phosphorus from urine! Although he didn't set out to discover this amazing element, his work has far-reaching consequences today. Fertilisers, matches and catalysts that allow the easy preparation of important new drugs, are a few applications of phosphorus in a multi-billion dollar industry.

Important discoveries

The alchemist's mantle was put on a firmer footing by such great minds as Faraday, Perkin, Dalton, Lavoisier, Ramsay, Rayleigh and Mendeleev. They all had something in common with the great alchemists before them; they saw intrigue, curiosity and challenge. As a society we owe much to these scientists and to others that have led the way. Where would we be without pharmaceuticals, polymers, semi-conductors, petrochemicals and other essential developments?

Future challenges

Even so, we are still faced with ever greater challenges – challenges that will shape the future of our world. How are we to keep our planet clean, generate sustainable fuel and food resources for an expanding population, keep the atmosphere safe and eradicate killer diseases? We don't yet have all the answers to these important questions but we do know where to find them – in chemistry! The success of future technologies such as hydrogen fuel cells, nanotechnology and photovoltaic devices all rely on the ingenuity of chemists to devise new materials.

Why UCL?

UCL achieves consistently high ranking in external assessments and league tables, including being ranked globally fourth in the *Times Higher Education – QS* World University Ranking 2009. As a multifaculty university, UCL offers study in a vast array of subjects from medicine, law, architecture and economics to space science, fine art and Russian. It is also home to over 22,600 students from 130 countries.

Legacy of the founding fathers

Established in 1826, UCL's founders were inspired by the philosopher Jeremy Bentham. He was a pioneer of legal and social reform and the founder of utilitarianism and you can see his mummified remains on display in the Cloisters! The founders aimed at creating a university that would be open to all and UCL became the first in England to admit students from different racial, class and religious backgrounds. It was also the first to admit female students on equal terms with male students. These were important educational milestones and today UCL continues to break new ground, raising standards in higher education.

Location, location, location!

UCL is located on a compact site in the heart of London, a few minutes' walk from the British Museum, Oxford Street and Regent's Park. This provides a unique environment in which to study and work, while being the ideal base to explore and become immersed in all that London has to offer.

Chemistry at UCL

The Chemistry Department at UCL was the first in England and was one of the founding disciplines of UCL in 1826.

The department

In over 180 years the department has been a trailblazer for the subject. It was the first in the world to teach experimental chemistry to undergraduates and hosted Sir William Ramsay, the first British Nobel Laureate, who was rewarded in 1904 with the Chemistry Prize for his discovery of the noble gases. Sir Thomas Graham, famous for his laws of effusion and the first President of the Royal Society of Chemistry, was another notable luminary. Others include Sir Christopher Ingold, the father of mechanistic organic chemistry, and Sir Ron Nyholm, the leading light behind the renaissance of inorganic chemistry in the 1960s.

Awards and facilities

Today the department is housed in a modern building opposite the UCL Bloomsbury (the university's own theatre) and a few minutes' walk from Euston station and the British Library. The department boasts almost 50 full-time staff and is recognised for the international quality of its research. Our research excellence relates directly to the amount of money we receive and has contributed to the building and furnishing of state-of-the-art laboratories with facilities to match any nationally and rival most internationally. These are used by undergraduates in their final year, as well as by the many graduates and research workers in the department. Our teaching laboratories have recently been fully refurbished at a cost of over £3 million.

Teaching practices and staff

The department has an annual undergraduate target of only 95 students, which results in an excellent staff-to-student ratio. A major benefit of this is the amount of personal attention we are able to give our students, which enables us as teachers to aid the development of your talents and skills. It also allows us to run an intensive small-group tutorial programme, where you meet regularly with leading members of staff to get help and support with your studies. Moreover, **all** our staff teach, so you interact with experts from across the discipline. The chemistry programmes are accredited by the Royal Society of Chemistry (RSC), which will be an important factor when you come to look for a job following graduation.

Above all, we as a department pride ourselves on the good relationships we develop with our students and on the convivial atmosphere in which both teaching and study take place. From your first day, you will become part of the Chemistry community at UCL and an integral part of its continuing success.

We also want you to have the opportunity to contribute to the continued success of the department: whether it is by helping to organise the Chemical Physical Society, or serving on the staff-student consultative committee or taking part in our vibrant school ambassador scheme.

Your degree

MSci or BSc?

The department currently offers seven, four-year degree programmes at MSci level: Chemistry, Medicinal Chemistry, Chemical Physics, Chemistry with Management Studies, Chemistry with Mathematics, Chemistry with a European Language and Chemistry (International Programme). They can also all be studied at BSc level in three years with the exception of Chemistry (International Programme).

The BSc qualification is the more traditional three-year programme, while the four-year MSci programme allows you to study more advanced topics and to work on an extended research project within one of our internationally renowned research groups. As you may not yet know which degree structure will be right for you, entry requirements for BSc and MSci programmes are the same and we recommend applying for an MSci in the first instance to give yourself the most flexibility and control, for example, in relation to funding.

THE STUDENT VIEW

Sandeep Sehmi
Chemistry with Mathematics MSci
First year

“UCL has always been an excellent university and has always offered amazing and diverse programmes. I love the fact that I can continue studying my two favourite subjects, chemistry and maths. It enables me to study other courses around the subject and it’s very interesting. It is a challenging programme and I feel that it stretches me enough to fulfil my academic potential. UCL has a very high academic standard and I feel privileged to be a part of such a diverse and friendly community.”

In fact, the first two years of the BSc or MSci programmes are identical, so you don't have to make a final choice between them until the end of the second year. When you reach this stage, we'll get together to discuss your career aspirations. Generally, we will recommend the MSci programme if you want to continue studying chemistry beyond a first degree – for example to do a PhD – or if you want to work towards a career in the chemical industry. For those wishing to use their degree as a way to access other career paths such as law, working in the financial sector or management consultancy, a BSc qualification may be more appropriate.

Over the next few pages you'll find more detailed descriptions of the programmes we offer and we hope this will help you make your choice. However, we realise that this isn't always easy and so we adopt a flexible approach towards students wishing to transfer between programmes. If you're still in doubt, apply for the Chemistry programme and at the interview we can discuss your choices further.

The modular system

The degree programmes are organised on a course-unit system, in which students take a number of individual courses, each assigned a course-unit (CU) value depending on the amount of work involved. UCL has extended this system to assign each course a European Credit Transfer System (ECTS) value. ECTS allows students to gain recognition for academic achievement at participating institutions across Europe, which can assist UCL students who wish to pursue educational or career opportunities throughout Europe. One course unit is equivalent to 15 ECTS credits.

By implementing this system, we give you the flexibility to tailor your degree to your requirements and interests. In many programmes optional courses can be taken outside the Chemistry Department, in other scientific disciplines and subjects such as management studies and European languages. Moreover as a student of a multifaculty university, you can also explore new subjects such as Japanese or History of Art.

Chemistry MSci (UCAS code: F101), BSc (UCAS code: F100)

This programme is ideal for those wanting both a complete education in chemistry and more time to see how their interests develop before they specialise. The programme covers all the important areas of chemistry, while also allowing you to take other subjects as options. Popular choices include astronomy, biology, computing, languages, management, physics, psychology, geology and statistics, but many more are on offer and it's possible to take optional courses outside the

Chemistry Department throughout your degree. Indeed, as we want you to make a well-rounded start, no optional chemistry courses are offered in the first year. If you want to study nothing but chemistry after that, we won't persuade you otherwise!

Years 1 and 2

Your first term at university is an important time and is when the foundations of your degree are laid. To this end, students on all the programmes in the department take the course '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 courses, you'll also take a course in mathematics that's appropriate to your ability. In the second year, the three main themes of chemistry are again developed in individual courses, leaving you free to choose two options, which can be either chemical or non-chemical.

MSci and BSc – the difference

The BSc and MSci programmes are identical for the first two years, but differ somewhat after this. In the third year of both you'll have considerable scope to develop your own portfolio of interests, since the majority of courses are optional. An array of these is available (many are listed in the UCL Undergraduate Prospectus) and even the experimental work can be chosen from a wide range of modules on the 'Introduction to Research Methods' course. As an MSci student you also carry out a literature project under the supervision of a member of staff, reviewing current research topics, and thus establish a good basic grounding in all aspects of chemical research.

BSc students take slightly less practical work and are encouraged to select a series of optional courses, both from within the department and from others offered at UCL. In this way you can develop your interests both within and outside chemistry and have more to offer future employers.

Year 4 of MSci

In the final year of the MSci programme, since all courses are optional, you could be working to a completely different timetable from your colleagues and representing your developing interests – whether they be in mainstream chemistry or on its many borders with the physical or life sciences. For half of your time, you'll undertake a research project from September to March and work under the supervision of one of our academic staff, with access to the many research facilities in the department or in collaboration with other departments at UCL, such as the London Centre for Nanotechnology. Here you will tackle exciting new chemistry and be integrated into your supervisor's research group. The research project will give you ownership of a new chemical problem that is yours to solve. Your project gives you the genuine opportunity to contribute to our

knowledge of chemistry: you will find something that no-one knew before! There are many advanced lecture courses to choose from, both in chemistry and in related disciplines, and you will experience real chemistry at the 'cutting edge' of the subject. You'll also be given the opportunity to carry out your final-year project at one of our partner universities in France, Germany, Italy, Spain or Sweden as part of the Erasmus Scheme. We are also developing opportunities for students to spend time at prestigious North American universities.

Medicinal Chemistry MSci (UCAS code: F153), BSc (UCAS code: F150)

Medicinal Chemistry is all about the discovery, design and synthesis of new drugs for clinical use. UCL was the first UK university to offer a medicinal chemistry programme and it originated from an alliance between the Departments of Chemistry and Pharmacology. This solid tradition is sustained today, with the Chemistry Department maintaining a position of international excellence in teaching and research in medicinal chemistry. Strong links have also been developed with the pharmaceutical sector of the industry, while UCL's strength in medicine and the life sciences has led to exciting new areas of research collaboration and new courses taught between departments.

The programme structure

The Medicinal Chemistry programmes are quite different from the others offered by the department and the courses are split half and half between chemistry and the life sciences. You will take courses in all aspects of chemistry, but organic chemistry is developed to the greatest extent. Specialist courses such as 'Principles of Drug Design' and 'Biological Chemistry' are compulsory, as are the advanced organic synthesis courses featured in the third and fourth years. Compulsory courses are also taken in a number of the life sciences including biology, physiology, biochemistry and pharmacology and all students also take a statistics course.

Years 1 and 2

The first year of the Medicinal Chemistry programme has three courses in common with the other chemistry programmes, but also includes courses in 'Cellular and Molecular Biology' and 'Mammalian Physiology'. Inorganic chemistry and mathematics are not taken. In Year 2, organic and physical chemistry are taken further, together with an introduction to inorganic chemistry, while life science courses include pharmacology and biochemistry. The first two years of BSc and MSci programmes are identical and all courses are compulsory.

Year 3
In the third year of Medicinal Chemistry, BSc and MSci students diverge, with MSci students taking a literature project, while BSc students choose another optional course.

Year 4 of MSci
As with the Chemistry programme, the focus of your final year will be your research project. As a specialist in Medicinal Chemistry you will have access to cross-disciplinary projects in fields such as drug design, chemical biology and organic chemistry. Advanced taught courses are available in both Chemistry and allied life sciences.

Chemistry with Management Studies MSci (UCAS code: F1NF); BSc (UCAS code: F1N2)

The Chemistry with Management Studies programmes are very popular and they are ideal if you're considering a career in management and are looking to develop managerial skills. As with all the 'Chemistry with' programmes, the chemistry component is not compromised and all major aspects of the subject are explored and developed.

The programme structure
The management component takes up around 25% of the whole programme and encompasses the majority of the optional courses. These are mainly taken in UCL's Department of Management Science and Innovation and some are compulsory, while others are optional. The former include: 'Foundations of Management', 'Management and Information Control', 'Business in a Competitive Environment' and 'Project Management'. There is a diverse selection of options to choose from, taught by a range of other departments – popular choices being 'Statistical Methods and Computing', 'Social and Business Psychology', 'Occupational Psychology', 'Operational Research', and 'The Communication of Scientific Ideas'. All courses offered by the Department of Management Science and Innovation are part of a UCL-wide programme and you will be taking courses alongside students from many different degree programmes. Students of the Chemistry with Management Studies programme often comment that they enjoy the balance of their more analytical chemical studies and the judgmental aspects of the management programme.

Flexibility within the programme
The Chemistry with Management Studies programme has many similarities with the single-subject Chemistry programme. Not only are the entry requirements the same for both programmes, the chemistry components within them are also identical so you can transfer to the latter at any stage.

The structure of the chemistry courses on the Chemistry with Management Studies programme is also similar to that of the single-subject Chemistry programme and for both any decisions regarding progression onto the MSci are taken at the end of the second year.

Chemistry with a European Language MSci (UCAS code: F1RX), BSc (UCAS code: F1R9)

The Chemistry with a European Language programmes allow you to study chemistry while gaining fluency in one of a range of languages. European Language programmes include French, German, Italian and Spanish. As well as being able to study a language for the sheer enjoyment of it, on graduation you will be well placed to work in mainland Europe or as part of a multinational company.

UCL Language Centre

The full range of chemistry core components are taken in Chemistry with a European Language. In the first three years, around 25% of your time will be centred at the UCL Language Centre and the specialist language departments. This provides a continuous progression of language and its related courses. The language component is taught in small groups with common levels of fluency ranging from complete beginners to experts. The UCL Language Centre is a first-rate facility, providing access to all necessary modern language aids.

MSci – studying abroad

The chemistry content of the first three years directly follows that of the single-subject Chemistry programme, with progression to the MSci being decided at the end of the second year. Unlike most programmes that include study of a foreign language, students on the Chemistry with a European Language MSci programme spend their entire final year at a university in mainland Europe. We feel that this gives students longer to develop both their chemical and their language skills, while becoming fully absorbed into another culture. Therefore, in this final year, MSci students carry out an extensive research project in their chosen host institution. Close links have been developed with a number of European universities and the consortium currently encompasses Lyon, Bordeaux, Strasbourg, Dresden, Dortmund, Parma, Santiago de Compostela, Uppsala and Zaragoza.

Chemistry (International Programme) MSci (UCAS code: F105)

The Chemistry Department at UCL is pleased to offer the Chemistry (International Programme) MSci. For a number of years, we have successfully run the Chemistry with a European Language in which final-year MSci students undertake a research project at a partner European university. We are now able to extend the range of institutions where a student can study to North America (for example, Caltech) and to Australian universities. After following the single-subject Chemistry syllabus for the first two years, suitably qualified applicants will spend the third year of their degree programme overseas returning to complete their studies at UCL during their fourth year.

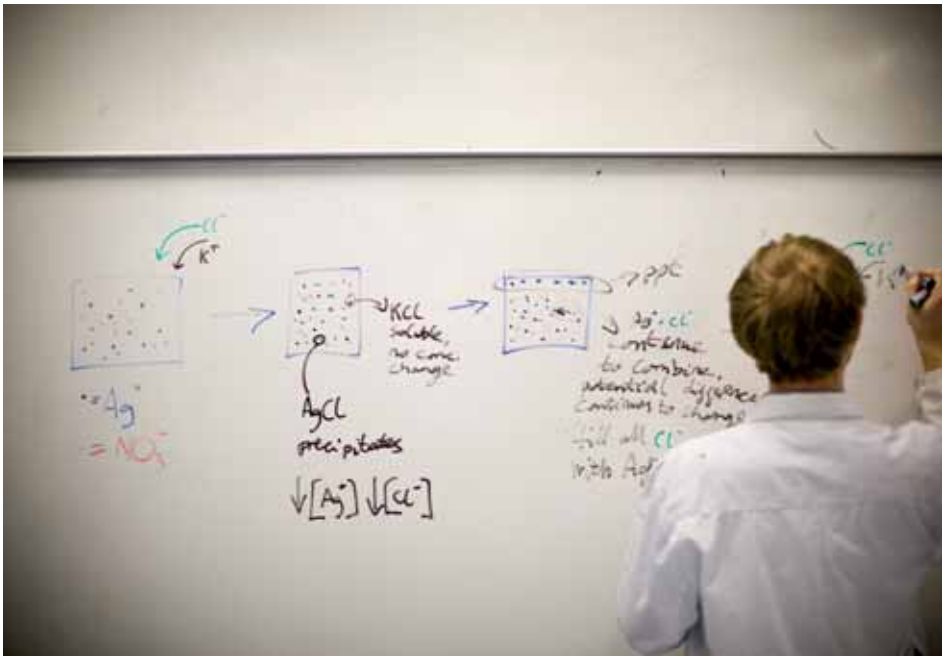
Chemistry with Mathematics MSci (UCAS code: F1GC), BSc (UCAS code: F1G1), Chemical Physics MSci (UCAS code: F323), BSc (UCAS code: F320)

Many students choosing to study chemistry as their major discipline still want to develop their understanding of mathematics and physics.

The Chemical Physics and Chemistry with Mathematics programmes will give you a firm grasp and a fundamental understanding of the origins of chemical behaviour, while exploring exciting developments at the interface of chemistry with the other physical sciences.

Chemistry with Mathematics
The Chemistry with Mathematics programmes involve spending around 25% of your time studying mathematics, together with all the other core chemistry courses. In the first two years there are a number of compulsory mathematics courses including ‘Pure Mathematics’, ‘Advanced Calculus and Geometry’, ‘Group Theory’ and ‘Linear Algebra’, while in later years you can choose from the plethora of options offered by UCL’s internationally renowned Mathematics Department.

Chemical Physics
The Chemical Physics programmes on the other hand, allow students to develop their understanding of physics, while furthering their knowledge of fundamental aspects of chemistry and particularly of quantum mechanics. The Chemistry Department has a rich history at the crossing point between chemistry and physics, and robust, cordial relationships exist between the two departments. The Chemistry Department is home to UCL’s Centre for Computational Chemistry and the Centre for Cosmic Chemistry and Physics, while the London Centre for Nanotechnology is a joint venture between the two departments. Members of all of these centres offer an assortment of exciting courses at the chemistry-physics interface.



Students will take most, but not all of the core chemistry courses and there is plenty of scope to develop skills in physics and in the theoretical aspects of chemistry. To this end, either organic or inorganic chemistry may be omitted after the first year in favour of mathematics, physics and specialist chemical physics courses.

For those wishing to study both chemistry and physics in a broader sense, we would encourage application to our Natural Sciences MSci/BSc degree which allows a greater flexibility in the choice of chemistry and physics options, and allows bias towards other areas of chemistry and physics (such as nanoscience). For more information, please see www.ucl.ac.uk/prospectus/natsci or the separate Natural Sciences booklet, available from the Study Information Centre (see inside front cover for details).

Your learning

In the first year all students start with the course 'Introduction to Chemical Principles'. This multidisciplinary course covers aspects of organic, inorganic and physical chemistry.

As we take students from a range of different backgrounds, this course provides a good bridge between school and university – both in content and in developing new study skills. Like most courses in the first two years, it comprises three distinct learning environments: lectures, laboratories and small-group tutorials. The latter are a major feature of the department's teaching ethos, allowing you to get to know the staff, while providing you with a strong support system for the academic content of the courses. Assessment is made by a combination of laboratory performance, coursework and a written examination which, uniquely for the 'Introduction to Chemical Principles' course, takes place after the December break. This allows us to monitor your progress at an early stage and provide feedback, so you know you're on the right track.

The structure of the year

Unlike most UK universities, UCL has only two teaching terms. The benefit of this is that all teaching takes place before the Easter break. It allows for a long period of revision prior to the examinations, which generally count for at least 70% of your total assessment. These typically take place during May so you'll get your results earlier than most and will be set for a long summer break. You'll also graduate well before students from most other universities, giving you a

headstart when it comes to searching and applying for your first job. But more importantly, our approach allows you to develop a deeper understanding of the material during the year, ensuring you have the required knowledge for the examination and to take forward into further study.

Living

Accommodation

You need not be concerned about finding a place to live in your first year as, subject to you meeting our conditions, we will guarantee you a residential in your first year place irrespective of your permanent home address. With catered Halls of Residence and self-catering Student Houses, you can be sure of finding student accommodation at UCL to suit your lifestyle. Please see www.ucl.ac.uk/accommodation for further details.

Support and welfare

By providing support for your academic work and offering a range of services to assist you in your personal life, we help you to get the most from your studies and enjoy your time as a student here at UCL.

Right from the start you can take advantage of UCL's Transition Programme designed to help you settle in to your first year. Your Personal Tutor will guide you through your academic studies and can also direct you to other sources of help and support including the UCL Union Rights and Advice Centre, the Student Counselling Service, and the UCL Health Centre. Full details are available at www.ucl.ac.uk/current-students/support

Recreation

Studying in the centre of one of the world's great capital cities offers almost unlimited opportunities for you to enjoy your time at UCL. London offers unparalleled resources for learning and entertainment, including museums, exhibitions, theatres, shopping, restaurants and cultural festivals.

The social side of the department centres around the Nyholm Room, a large, newly refurbished common room used by both staff and students, which acts as a focus for the whole chemical community at UCL.

Many social activities are organised by the Chemical Physical Society, which is the department's student society. These include parties, trips to see football matches, plays, films, the opera, TV shows and to museums. The ChemPhysSoc is the oldest continuously running student science society in the UK and it also organises talks on more general scientific topics, with recent speakers including Peter Snow and Sir James Black, Nobel Laureate. After the serious stuff, we have a get-together usually at the Student Union, which is a stone's throw from the department.

UCL has its own fitness centre as well as facilities for a huge range of indoor sports and, in Hertfordshire, outdoor pitches and courts. UCL also has several cafés and bars where you can relax, and our own professionally equipped theatre, the UCL Bloomsbury. Over 130 clubs and societies covering all aspects of politics, arts, religion, culture and entertainment, as well as a wide variety of sports, are run under the auspices of the UCL Union. See www.ucl.ac.uk/study/undergraduate-study for more details.

Funding

Money is a concern for all students. Tuition fees, books, food, clothes and general living expenses all need to be covered. However, surveys show that investing in your education pays off and that London graduates can earn starting salaries which are up to 25% higher than the national average.

If you are a UK or EU student you can apply for a loan to cover tuition fees. Loans for maintenance (living expenses) are also available for UK and, in some circumstances, EU students. As a UK student you may also be eligible for a non-repayable Higher Education Maintenance Grant (HEMG). In addition, UCL Bursaries are available to assist those students who are in receipt of an HEMG with their fees and living expenses. There are also a number of UCL scholarships, some tied to particular departments (see pages 22-23) and others to students from specific countries. Full details may be found on the web at www.ucl.ac.uk/study/undergraduate-study/fees-and-costs

Your application

You will need to apply to us through UCAS (the Universities and Colleges Admissions Service). You can find out more information about this procedure either from your school or from UCAS itself, see their contact details on the inside front cover.

Where to find help

UCAS also offers an email enquiry service at enquiries@ucas.ac.uk that you might find useful. Our Admissions Tutor, Dr Dewi Lewis, can be contacted at d.w.lewis@ucl.ac.uk if you want further advice or to discuss the programme choices in more detail. The closing date for UCAS is generally mid-January, however in some cases, late applications may be considered.

If you're undecided

Those wanting to take a gap year should apply in exactly the same way. If you are undecided about which year of entry you would prefer to go for, we can discuss it at interview. Similarly, students who are still undecided about their choice of programme shouldn't worry too much at this stage. Providing we're kept informed, we are flexible with students who change either their year of entry or their choice of programme.

Interviews and visiting

If you are based in the UK and we believe that one of our degree programmes is right for you, we'll invite you for an interview and to spend a day visiting the department. This will give you a chance to meet us and to get a fuller impression of both the department and UCL. You'll also find out more about the individual programmes and meet undergraduates who can answer your questions about life at UCL. We use the interview to gain a better understanding of you and to help us make a more informed choice as to whether we make an offer.

Candidates based overseas, for whom travelling to an interview is impractical, will be sent additional information and a series of chemistry questions for discussion by email or telephone. You are welcome to arrange a visit if you are travelling in the UK.

Grades and offers

The department doesn't have a standard offer and since we interview students, our offers are based on our knowledge of the student and of their potential. Offers are normally made after interview, based on the following:

Entry requirements

A levels: F101, F100, F1NF, F1N2: AAA-BBB to include Chemistry and either Mathematics or another science subject; F105: AAA-ABB to include Chemistry and either Mathematics or another science subject; F323, F320: AAA-ABB to include Chemistry, Mathematics and Physics; F1RX, F1R9: AAA-BBB to include Chemistry and either Mathematics or another science subject, GCSE foreign language must be offered at minimum grade B; F1GC, F1G1: AAA-ABB to include Chemistry and Mathematics; F153, F150: AAA-BBB to include Chemistry and two from Biology, Physics or Mathematics. A pass in a further subject at **AS level** is required for all programmes.

IB Diploma: F101, F100, F1RX, F1R9, F1NF, F1N2: 32-38 points with a score of 15-18 points in three higher level subjects to include Chemistry and either Mathematics or another science subject; F105: 34-38 points with a score of 16-18 points in three higher level subjects to include Chemistry and either Mathematics or another science subject; F323, F320: 34-38 points with a score of 16-18 points in three higher level subjects to include Chemistry, Mathematics and Physics; F1GC, F1G1: 34-38 points with a score of 16-18 points in three higher level subjects to include Chemistry and Mathematics; F153, F150: 32-38 points with a score of 15-18 points in three higher level subjects to include Chemistry and two from either Biology, Physics or Mathematics.

Other qualifications: www.ucl.ac.uk/prospectus/chemistry

The department also considers students with other educational backgrounds, including the European Baccalaureate, Scottish Advanced Highers, Singapore and Hong Kong A levels, and recognised ACCESS courses.

If your first language is not English you will have to provide recent evidence of an adequate command of both spoken and written forms of the language. Details of which qualifications are accepted are listed in the UCL Undergraduate Prospectus or at www.ucl.ac.uk/prospectus

UCL University Preparatory Certificates

International students of high academic ability, but whose qualifications are not equivalent to the British system, should consider applying for a UCL University Preparatory Certificate (UPC). These are high-quality one-year undergraduate foundation courses, run by UCL, which aim to help such students gain access to degree programmes at UCL and other leading British universities across a broad range of subject areas.

These courses are not intended for students who have taken, or are taking, A levels or the International Baccalaureate Diploma.

For further details of UCL University Preparatory Certificates see www.ucl.ac.uk/upc or contact UPC Administrators, UCL Language Centre, University College London, 26 Bedford Way, London WC1H 0AP, EMAIL upc@ucl.ac.uk, TEL +44 (0)20 7679 8666, FAX +44 (0)20 7679 8667.

Scholarships and financial aid

A range of bursaries and scholarships is available – both at departmental and UCL level. Further details of UCL financial support can be found in the UCL Undergraduate Prospectus or on the web at www.ucl.ac.uk/scholarships

If you are a student from England, Wales or Northern Ireland you can apply for a means-tested, non-repayable Higher Education Maintenance Grant. The amount of the grant awarded will depend on the income of the student and/or their family. This will be supplemented by UCL's own bursary scheme through which undergraduate students in receipt of a Higher Education Maintenance Grant will receive, each year, a bursary equal to at least 50% of their grant. Students pursuing a four-year MSci or MEng programme, or a programme entailing a year abroad will, in their fourth year of study, receive a UCL bursary equal to 100% of their Higher Education Maintenance Grant or double the bursary received in their first three years of study, whichever is the greater. Further details can be found at www.direct.gov.uk/studentfinance

Bursaries sponsored by GSK and Astra-Zeneca are available each year. GSK provides an award worth £6,000 over a four-year programme, and is directed at those who may be the first from their family to go to Higher Education. We are also lucky enough to have bursaries of up to £2,000 per year of study for those from non-traditional backgrounds, through the kind benefaction of Alfred Bader, founder of the Aldrich Chemical Company. We typically award four of these each year according to financial need.

THE STUDENT VIEW

Marion Brooks-Bartlett
Chemistry MSci
Third year

"UCL is a very well-respected university, that caters for all students from different backgrounds. We are sought after more since London is thought to be the best and I feel there is more assistance financially with bursaries and grants. Chemistry is really enjoyable because it helps to understand the world in more detail and reduces the questions I have about life. I also attend some of the Chemical Physical Society meetings to hear more about chemistry. I have strongly considered researching after graduation, but could go into industry. I will be doing some internships to help me find out."

A number of entrance awards worth £500 are also presented to students who show high academic promise. Many are sponsored by the chemical industry and the numbers available vary from year to year. There are also prizes awarded to outstanding students in each year and the value of these ranges from £50 to £250. They are made primarily on the basis of examination performance.

UCL also has a variety of awards on offer to both UK and overseas students. More information about all of these awards can be found at www.ucl.ac.uk/scholarships or by contacting the Admissions Tutor at d.w.lewis@ucl.ac.uk.

Your career

The chemical industry, encompassing everything from the pharmaceutical sector to lubricants for F1 cars, from product safety to devising new fuels, and environmental protection, is one of the most exciting and successful parts of the UK economy. Many of our graduates take up positions in industry, either directly or after a PhD research degree.

Some continue, after graduate study, as researchers at university or government laboratories around the world, often becoming leading figures in their fields of interest. Our graduates are in great demand in many other fields such as management, the financial sector, information technology, scientific journalism, patent law and the scientific Civil Service. Teaching is also a popular career.

Disclaimer

This booklet must be read in conjunction with UCL's Undergraduate Prospectus. The information given in this booklet is correct at the time of going to press and UCL will make every effort to provide the programmes described herein. However, the booklet is published well in advance of the session to which it relates and UCL reserves the right to withdraw any programme, and to withdraw or amend the content of any course forming part of a programme, either before or after students enrol. UCL undertakes all reasonable steps to provide educational services but does not guarantee the provision of such services. Please see the detailed Disclaimer in UCL's Undergraduate Prospectus.

Information in alternative formats

The information in this publication can also be found at **www.ucl.ac.uk/prospectus** on the UCL website. If you require the information in an alternative format (e.g. large print), please contact UCL Student Disability Services.

EMAIL **disability@ucl.ac.uk**
TEL **+44 (0)20 7679 0100**

© Educational Liaison, UCL. May 2010

University College London
Gower Street
London WC1E 6BT

Information on UCL degree programmes:
EMAIL study@ucl.ac.uk
TEL +44 (0)20 7679 3000

↘ www.ucl.ac.uk/study

recycle
When you have finished with this booklet please recycle it

50% recycled
This booklet is printed on 50% recycled paper