



FACULTY OF LIFE SCIENCES /

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UCL's School of Pharmacy building, extended in 2008, is a centre for collaborative research into the discovery, design and development of medicines. The stairwell, connecting the extension to the original building, resembles a molecular structure.

Examining cells at a molecular level, biochemistry develops our understanding of the chemistry of life, revealing the complex processes in operation in living systems. Biotechnology harnesses these advances of understanding for beneficial use in industry, medicine and agriculture.

Subject overview

Total intake **100**

(2014 entry)

Applications per place **6**

(2012 entry)

Research Assessment Exercise (RAE)

70% rated 4* ('world-leading') or 3* ('internationally excellent')

First career destinations (2009–2011)

- Research Assistant, UCL Cancer Institute (2011)
- Analyst, Tesco (2011)
- Management Consultant, Deloitte (2010)
- Full-time student, MBBS in Medicine at Hull York Medical School (2010)
- Medical Biology Researcher, Academy of Athens (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/biochem

Biochemistry BSc

UCAS: C700 • 3 years

A levels: AAA. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Chemistry at grade 6, and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

Since its foundation as a discipline, biochemistry has illuminated many of the problems that have fascinated and perplexed biologists for generations. As biochemistry and molecular biology have become an essential part of much of modern science, a Biochemistry BSc is a valuable beginning to many different careers.

In year one, core courses provide an introduction to the subject and help you identify areas of specialisation for later years. After year one you may, if you wish, transfer to the Molecular Biology BSc. In year two you take further compulsory courses, with some optional flexibility which increases in year three. After year two you may choose to spend an additional year in an industrial or research laboratory, which will count towards your degree. Year three focuses on an individual research project.

Biotechnology BSc

UCAS: C560 • 3 years

A levels: AAA. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Chemistry at grade 6, and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

The Biotechnology BSc provides a sound base of chemistry, genetics, biochemistry and biochemical engineering alongside experience of the manipulative skills essential for future research, equipping you for a career in this exciting discipline, which has grown out of some of the most dramatic scientific discoveries of the last 30 years.

In year one, core courses in biochemistry and biochemical engineering provide an introduction to the subject and help you identify areas of specialisation for later years. In year two you take further compulsory courses, with some optional flexibility which increases in year three. After year two you may choose to spend an additional year in an industrial or research laboratory, which will count towards your degree. Year three focuses on an individual research project.

Biological Sciences /

www.ucl.ac.uk/prospectus/biolsci

Study of the biological sciences spans a vast and exciting range of topics, from cellular structure to genetics to ecosystems. The discoveries biologists continue to make about life processes are vital to our efforts to tackle challenging problems in human welfare and environmental protection.

Subject overview

Total intake **76**

(2014 entry)

Applications per place **7**

(2012 entry)

Research Assessment Exercise (RAE)

55% rated 4* ('world-leading')
or 3* ('internationally excellent')

First career destinations (2009–2011)

- Full-time student, MSc in Evolutionary Biology at Uppsala University and the University of Montpellier (2011)
- Research Assistant, Woods Hole Oceanographic Institute (2011)
- Research Analyst, Goldman Sachs (2010)
- Full-time student, PhD in Biology at the University of Cambridge (2010)
- Research Technician, UCL Institute of Neurology (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/biolsci

Biological Sciences MSci

UCAS: C901 • 4 years

A levels: AAA. Biology required plus one from Chemistry, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Biology at grade 6 and one from Chemistry, Mathematics or Physics, with no score below 5.

Other qualifications:

see online Prospectus entry.

This four-year MSci offers an additional year on top of the Biological Sciences BSc, which includes a research project, providing extra depth and knowledge which will particularly benefit those interested in further research. Year three may be spent abroad at a university in Asia, Australia, Europe or the USA.

Years one and two follow the same structure as the BSc, and you have the same choices regarding specialisation at the end of year one. In year three you may take optional courses from a wide range offered across UCL, or you may apply to spend this year abroad studying at a partner university. In year four you will focus on a research project and choose further advanced optional courses from a wide range. Students are advised to apply for the MSci initially as this offers more flexibility.



alumni

“ Genetics has a practical connection with policing through forensic science. When UCL’s Jill Dando Institute of Crime Science was launched I was determined to return as a student. ”

Oli Burbage-Hall • Sergeant, MET Police Service, London

Genetics BSc (1998)



StJohn Townsend

Genetics (International Programme) MSci

Second Year

“I chose UCL because its reputation for academic excellence has attracted some of the world’s leading biologists, such as Professor Steve Jones and Dr Nick Lane, and as I expected, being lectured to by them has been amazing. Furthermore, the university’s departments matched my own interests, particularly the Research Department of Genetics, Evolution and Environment. Finally, the opportunity to study abroad at some of the world’s top institutions gives another edge to the degree, both in terms of career prospects and personal development.

London is such a huge and multi-cultural city, there really is something for everyone. The sights are stunning, the nightlife and entertainment in the city second to none. The Natural History Museum and London Zoo are amongst these, and it’s incredibly exciting that UCL has links with these institutions as it opens up the possibility to carry out a research project in collaboration with one of them.”

Biological Sciences BSc

UCAS: C900 • 3 years

A levels: AAA. Biology required plus one from Chemistry, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Biology at grade 6 and one from Chemistry, Mathematics or Physics, with no score below 5.

Other qualifications:
see online Prospectus entry.

You can transfer to any of the following degree programmes after year one:

- Environmental Biology
- Genetics
- Human Genetics
- Zoology



The Biological Sciences BSc offers you an extremely wide choice of options ranging from molecular genetics to behaviour and ecology, and a flexible programme of study. Taught across the Faculty of Life Sciences, we offer a breadth of biological education unmatched in almost any other UK university.

Year one covers a core range of subjects from across the spectrum of the biological sciences, giving you a firm foundation for later years. In year two, you may either continue towards a degree in Biological Sciences (Cells, Generalist or Whole Organism), or choose from four specialised degree pathways: Environmental Biology, Genetics, Human Genetics or Zoology. In year three you will undertake either a research project or a literature review, and choose courses from a wide range offered across UCL.

Biomedical Sciences graduates apply their advanced skills in the dynamic and exciting field of biomedical research to improve understanding of human health around the globe. Biomedical discoveries in the mechanisms of disease are enabling advancements in diagnosis, the development of new and improved treatments, and the prevention of illness.

Subject overview

Total intake **134**

(2014 entry)

Applications per place **7**

(2012 entry)

Research Assessment Exercise (RAE)

Interdisciplinary programme:
see contributing departments

First career destinations (2009–2011)

- OSS Tools Engineer, mBlox (2011)
- Clinical Research Technician, Quince Thelma (2011)
- Marketing Executive, Zimmer (2011)
- Full-time student, Medicine MBBS at UCL (2010)
- Full-time student, PhD in Developmental Genetics at the Institute of Cancer Research (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/biomedsci

Biomedical Sciences BSc

UCAS: B990 • 3 years

A levels: AAA. Biology and Chemistry required, plus Mathematics or Physics preferred. Mathematics must be offered at **AS level** if not offered at A level. Otherwise, a pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects to include Biology and Chemistry, plus Mathematics or Physics preferred, with no score below 5.

Other qualifications:
see online Prospectus entry.

This BSc is designed to introduce students to a variety of scientific disciplines across the biosciences. The interdisciplinary nature of the programme means that the areas covered include anatomy, cell biology, developmental biology, genetics, immunology and infection, neuroscience, pharmacology, physiology and psychology.

All year one courses are mandatory and provide a firm foundation on which to make informed choices for later years. If, after year one, your interests have become specialised, you may transfer onto a specialist degree programme, for example Immunology or Physiology, or you may continue with the generalist programme. In years two and three you may choose from a wide range of options within five streams of study. In year three all students also undertake a research project.

You can transfer to any of the following degree programmes after year one:

- Anatomy and Developmental Biology
- Genetics
- Human Genetics
- Immunology
- Molecular Biology
- Neuroscience*
- Pharmacology*
- Physiology
- Physiology and Pharmacology

* You may apply to Neuroscience and Pharmacology for first-year entry; see pages 104–106 for details



Subject overview

Total intake **44**

(2014 entry)

Applications per place **4**

(2012 entry)

Research Assessment Exercise (RAE)

Interdisciplinary programme:
see contributing departments

First career destinations (2009–2011)

- Application Analyst, Essential (2011)
- Commercial Graduate, Rolls Royce (2011)
- Full-time student, MSc in Environmental Technology at Imperial College London (2010)
- Trainee Accountant, PricewaterhouseCoopers (2010)
- Research Intern, Science Museum (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/humansciences

The interdisciplinary approach of Human Sciences enables advanced discoveries in human biological function to be studied in combination with the behavioural insights provided by social science. The contrasting perspectives and methodologies covered illuminate and expand our understanding of humankind.

Human Sciences BSc

UCAS: BCL0 • 3 years

A levels: AAA. Science subject required, preferably Biology. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including science (preferably Biology), with no score below 5.

Other qualifications:
see online Prospectus entry.

UCL is one of the few universities in the UK to offer Human Sciences. This interdisciplinary degree draws on teaching from a range of departments, and offers enormous flexibility and opportunity for you to develop your own areas of interest and specialisation in the study of humankind.

Year one is primarily comprised of core courses, providing you with a broad foundation in biochemistry, biological anthropology, genetics, human anatomy, mammalian physiology, psychology and statistical methods. In year two you will take a core course, The Human Sciences in Society, and select optional courses from a wide range offered across UCL. In year three you will write an interdisciplinary dissertation, and choose further optional advanced courses from a wide range.



Laura Davies

Human Sciences BSc

Third Year

“I chose the Human Sciences degree because it seemed like the perfect way to stay studying within the sciences but explore different areas of interest. There’s a huge selection of courses to choose from so you really can build your own perfect degree. This seemed to me like a win-win situation.

The interdisciplinary nature of the degree means you have a very varied learning experience. From small tutorial classes to laboratory sessions to group work meetings, every day is different for a Human Sciences student.

I knew that I wanted to study at UCL from the first time I stepped into the Main Quad and experienced its exciting and cosmopolitan atmosphere. UCL’s reputation for ground-breaking research and academic quality was the icing on the cake.”

The brain is the most complex structure we know. It interprets our sensations, stores our memories and regulates our body functions. Neuroscientists aim to understand how some 100 billion nerve cells co-operate to do these tasks, and how they malfunction in devastating disorders such as epilepsy and Alzheimer's.

Subject overview

Total intake **33**

(2014 entry)

Applications per place **8**

(2012 entry)

Research Assessment Exercise (RAE)

70% rated 4* ('world-leading') or 3* ('internationally excellent')

First career destinations (2009–2011)

- Full-time student, PhD in Neuroscience at the University of California, San Diego (2011)
- Full-time student, MBChB in Medicine at the University of Warwick (2011)
- Laboratory Assistant, Centre for Reproductive and Genetic Health (2010)
- Research Technician, Hammersmith Medicines Research (2009)
- Full-time student, MSc in Decision Sciences at LSE (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/neuroscience

Neuroscience MSci

UCAS: B141 • 4 years

A levels: AAA. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Chemistry and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

The Neuroscience MSci offers an extra year on top of the Neuroscience BSc, during which students extend their specialised knowledge and conduct original research. Entry requirements for both programmes are the same and students can review whether to proceed with the three-year BSc or the four-year MSci during year two.

Years one and two follow the same structure as the Neuroscience BSc (see right), with a combination of core and optional courses giving you a firm foundation in the discipline and allowing you to identify areas for specialisation. In years three and four you will continue with advanced courses in neuroscience and related subjects, and in each of these years you will undertake an individually-supervised project: an advanced literature project in year three and a Master's-level experimental project in year four.

Neuroscience BSc

UCAS: B140 • 3 years

A levels: AAA. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 38 points. A total of 18 points in three higher level subjects including Chemistry and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

This BSc spans several disciplines to encompass the structure, function and development of the brain and nervous system. You will be able to take courses in cell biology, developmental neurobiology, neuroanatomy, neurophysiology, pharmacology and psychology, and see how the overlapping disciplines combine to create neuroscientific knowledge.

Year one comprises compulsory core courses and options related to neuroscience that provide a firm foundation for later years. In year two, your choice of optional courses increases, allowing you to specialise, and you may also take one course from outside neuroscience (for example, a language). In year three, you continue with advanced neuroscience and related courses and join an existing research team in one of UCL's departments or institutes to conduct an original research project.

Subject overview

Total intake **37**

(2014 entry)

Applications per place **5**

(2012 entry)

Research Assessment Exercise (RAE)

70% rated 4* ('world-leading') or 3* ('internationally excellent')

First career destinations (2009–2011)

- Assistant Scientist, AkzoNobel (2011)
- Data Manager, Institute of Cancer Research (2011)
- Full-time student, MSc in Analytical Toxicology at King's College London (2011)
- Tax Consultant, PricewaterhouseCoopers (2010)
- Full-time Student, PhD in Chronic Pain Mechanisms at King's College London (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/pharmacology

Pharmacology is the science of how chemical substances, including medicines, interact with our bodies in both healthy and diseased states. Pharmacological advances play a large part in medicine and human health, from the development of new therapeutic agents to understanding the effects of poisons and drugs of abuse.

Pharmacology MSci

UCAS: B211 • 4 years

A levels: AAA-AAB. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 36-38 points. A total of 17-18 points in three higher level subjects including Chemistry and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

This programme is intended for students who want to pursue careers or further study in pharmacology or related disciplines. It offers a further year on top of the Pharmacology BSc in which to undertake a research project and advanced courses; applying for the MSci initially will keep more options open.

The first three years of the programme follow the same structure as the BSc, and you may want to consider a 'sandwich' year taken between years two and three, spent in the pharmaceutical industry or another pharmacology-related area. In year four you will have the opportunity to join a research team and carry out your own extended experimental research project, and follow advanced optional courses from a wide range.



Ross Goodson

Pharmacology BSc

Third Year

"UCL's Pharmacology programme has an outstanding reputation and always ranks highly in university league tables. From visiting UCL I found the teaching staff to be very friendly and easily approachable and despite being in central London, UCL has a campus feel.

The practical sessions that are undertaken over the three-year programme are very enjoyable. Lab work breaks up the time spent in lectures and allows scientific theory to be put into practice. I was able to put the experimental skills developed at UCL into practice during a 12-month placement at Eli Lilly, a neuroscience research laboratory.

I have not fully decided on a career path. I have been looking into PhDs, further study, postgraduate medicine and other graduate schemes. There are many career options for pharmacology graduates both inside and outside of science."

A second-year student conducting vision tests on the intermediate course Structure and Function of the Nervous System



Pharmacology BSc

UCAS: B210 • 3 years

A levels: AAA-AAB. Chemistry required plus one from Biology, Mathematics or Physics. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 36-38 points. A total of 17-18 points in three higher level subjects including Chemistry and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications:
see online Prospectus entry.

The subject of pharmacology is immensely broad and covers areas of physiology, biochemistry and toxicology. This flexible three-year programme offers a thorough grounding in the subject, and students have the option of transferring to the MSci at the end of year two.

In year one all courses are compulsory, giving you a sound knowledge of the discipline and enabling you to identify your strengths and interests. Year two is mainly compulsory, but by year three you will have more freedom to choose from a wide range of specialist optional courses. You will undertake a research project in year three which may include experimental laboratory research. You may also consider a 'sandwich' year taken between years two and three, spent in the pharmaceutical industry or another pharmacology-related area.

Subject overview

Total intake **200**

(2014 entry)

Applications per place **7**

(2012 entry)

Research Assessment Exercise (RAE)

65% rated 4* ('world-leading') or 3* ('internationally excellent')

First career destinations (2009–2011)

- Pre-registration Pharmacist, Moorfields Eye Hospital (2010)
- Pre-registration Pharmacist, Lloyds Pharmacy (2010)
- Pre-registration Pharmacist, St George's Hospital (2009)
- Pre-registration Pharmacist, GlaxoSmithKline (2009)

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For more information, including programme structure, scan this code with your smartphone or visit: www.ucl.ac.uk/prospectus/pharmacy

Pharmacists are concerned with the science of medicines – how they work, how they are made and how they are used to prevent and treat disease. You will study the function of the human body in health and disease and how drugs are discovered, formulated and used therapeutically, in the context of professional pharmacy practice.

Pharmacy MPharm

UCAS: B230 • 4 years

A levels: AAA-AAB. Chemistry and either Biology, Mathematics or Physics required. A pass in a further subject at **AS level** or equivalent is required. Standard **GCSE** offer (see page 30), except English Language and Mathematics at grade B.

IB Diploma: 36-38 points. A total of 17-18 points in three higher level subjects including Chemistry and one subject from Biology, Mathematics or Physics, with no score below 5.

Other qualifications: see online Prospectus entry.

Pharmacists are experts in medicines with a deep understanding of the scientific basis of therapy. The MPharm programme integrates the teaching, learning and understanding of pharmaceutical science in the context of pharmacy practice. We offer you the opportunity to become a confident and competent professional committed to lifelong educational development.

Years one and two focus on the scientific basis of pharmacy and the translation of medicines from laboratory to patient. In year three you will undertake a research project which may be carried out within the school, or in another institution in the UK or abroad, and in year four you may choose from a wide range of advanced specialist options. You will have contact with patients throughout your degree. The programme is accredited by the General Pharmaceutical Council (GPhC).



Ngoc Phuong Lan Le

Pharmacy MPharm

Fourth Year

“The programme offered by the UCL School of Pharmacy is renowned as one of the best in the world. In addition to the courses taught by leading experts in their fields, the school's strong industrial and hospital ties ensure that everything we learn will be relevant, up-to-date and directly applicable to the profession. The research opportunities available to undergraduates attracted me particularly.

I enjoyed these research opportunities the most. For instance, during the summer of 2011, I worked in the school's biochemistry research lab, where I screened natural extracts for their inhibitory effects on an acetylcarboxylase enzyme, a key in the pathogenesis of diabetes and obesity. Through such experiences, I have come to appreciate the intricacies of the mechanisms of drug action at a molecular level.”