Applied Medical Sciences MSci /

This programme fuses science with medicine, enabling graduates to translate scientific advances into clinical practice. Students learn to understand both science and the foundations of medicine, including the mechanisms of disease and how diseases are treated. Graduates will be empowered to work at the highest levels within the biomedical sciences.

Key information

Programme starts
September 2018

Location
London, Hampstead (Royal Free Hospital)

Degree benefits

// You will gain a solid foundation in medicine and science through an exposure to a variety of different disciplines, with an added focus on laboratory skills.

// You will attain the skills required to achieve employment at the highest levels in biomedical research, in the pharmaceutical industry, in biotechnology, clinical trials, hospital management, public health, and nutrition, along with other fields.

// You will have the benefit of sessions specifically designed to enhance creativity and inventiveness and to develop team work. The programme will give you access to inspirational talks by external speakers on science, medicine and the arts.

// You will be taught by clinicians as well as basic scientists. This special fusion of science and medicine will give graduates a competitive advantage in careers at the interface of these two disciplines.

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.

// 80% 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).

Year one is demanding, covering the foundations of human biology and medicine. The core modules provide an understanding as to how the body works, what goes wrong in disease and how to treat it. You will be mostly based at UCL’s Royal Free campus in Hampstead, North London, and taught by world-leading scientists and clinicians. The programme is designed not just around individual excellence, but also on all-important team skills. As an example, you will be enrolled into one of four ‘houses’ which compete for points in various events, both fun and academic, including invention activities.

In year two, you will take five compulsory modules. There are a wide range of optional modules, of which you will select three. This flexibility will enable you to choose your own route within the biomedical sciences: between biomedical entrepreneurship, clinical trials, study of infection, or regenerative medicine and nanotechnology.

Years three and four follow a similar pattern, with modules built around a solid applied medical science core. You can tailor a programme to suit your needs and aspirations, while the core skills will give you the grounding to pursue a career you enjoy. You will also have a one-month professional placement and be engaged on a research project in both years.

YEAR ONE

Core or compulsory module(s)

// Cardiovascular and Respiratory Function in Health and Disease
// Data Interpretation and Evaluation of Science
// Foundations in Health and Disease
// The Gut, Liver and Drug Metabolism
// Infection, Inflammation and Repair
// Kidneys, Hormones and Fluid Balance
// Musculoskeletal Systems in Health and Disease

Optional modules

// You will select one of the following:
// Functional Anatomy and Medical Imaging
// Principles of Pathological Science

YEAR TWO

Core or compulsory module(s)

// Molecular Basis of Disease
// The Nervous System
// Pharmacology and Drug Action
// Statistics for Medical Scientists
// Techniques in Molecular Medicine

Optional modules

// You will select three of the following:
// Cancer Biology
// Infection
// Innovation Management
// Introduction to Applied Genomics
// Introduction to Clinical Trials
// Medicine and Society
// Physics of the Human Body
// Tissue Engineering and Regenerative Medicine
// Plus modules from other UCL departments as appropriate.
YEAR THREE

Core or compulsory module(s)

// Professional Experience
// Research Methods
// Research Project

Optional modules

// You will select four options from modules within the following areas:
// Cancer
// Clinical Trials
// Infection and Immunity
// Innovation
// Pharmacology
// Regenerative Medicine

FINAL YEAR

Core or compulsory module(s)

// Research Project

Optional modules

// A range of optional modules are available, including modules from the following MSc programmes:
// Advanced Biomedical Imaging
// Drug Design
// Clinical Drug Development
// Clinical and Public Health Nutrition
// Human Tissue Repair
// Nanotechnology and Regenerative Medicine

Your learning

Our innovative online teaching system allows you to learn at your own pace and explore topics in greater depth. The face-to-face teaching which follows offers more intensive, creative sessions of tutorial-based problem solving and learning in small groups. Extensive practicals support your training in laboratory skills. Combining online and face-to-face teaching means you take greater control of your academic development.

Placement

Applied Medical Sciences differs from most biomedical science degrees in that students develop a very strong understanding of the foundations of medicine, with an emphasis on fusing science with medicine. The programme is angled towards the development of an appreciation of how science helps us to understand and treat various diseases.

Assessment

Formative and summative assessment methods include: online and written examinations (some of which are multiple-choice or short-answer question format); coursework; poster presentations; practical skills assessment; and online participation. In years three and four you will be required to write project dissertations.

Your career

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This programme will enable you to become a highly skilled scientist who can make medicine work for patients. Alternatively, you might like to use your knowledge to find a career in research. You will be able to adapt your skills to other professions where an understanding of science and medicine are crucial.

As the first cohort of students for this programme will not graduate until 2018, there is no career destination information available. However, students from the BSc route have successfully applied for MSc and PhD programmes, graduate entry Medicine, and jobs in biomedical science.

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.

Evidence in your application of sustained interest in science, demonstrating your self-motivation and organisational skills, is important. This programme will suit students who want to make a difference in the world, who are innovative and inventive, prepared to be challenged, and willing to explore areas outside their comfort zone.

We will use your predicted or achieved academic qualifications, your personal statement and your reference to decide whether to offer you a place.
Entry requirements

A LEVELS
Grades
AAA-AAB

Subjects
Biology and Chemistry required.

GCSE
English Language and 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
36-38 overall.

Subjects
A total of 17-18 points in three higher level subjects including Biology and Chemistry, 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: £24,040 (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
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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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