APPLIED MEDICAL SCIENCES
MSci / UCAS CODE: 3F76
2019 ENTRY

www.ucl.ac.uk/prospectus
Applied Medical Sciences MSci

This programme bridges the gap between science and medicine, enabling graduates to understand science in the context of mechanisms of disease and treatment. By fusing science with medicine, our graduates will be ideally placed to translate scientific advances into clinical practice, and to work at a high level within the biomedical sciences.

Key information

Programme starts
September 2019

Location
London, Hampstead (Royal Free Hospital)

Degree benefits

// You will gain a solid foundation in medicine and biomedical sciences through exposure to a variety of different disciplines together with laboratory skills.

// You will attain the skills required to achieve employment at a high level 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 fusion of science and medicine gives graduates a competitive advantage in careers at the interface of these two disciplines.

Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 15 or 30 credits, adding up to a total of 120 credits for the year.Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 30-credit module is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

Year one is demanding, covering the foundations of human biology and medicine. The core modules provide an understanding of 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 around 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. This flexibility will enable you to choose your own route within the biomedical sciences: between biomedical entrepreneurship, clinical trials, the 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 be engaged on a research project in both years, and can elect to do a one-month professional placement in year three.

Years one, two and three follow the same structure as the BSc. Year four, the MSci year, allows you to specialise further and to develop research competence in your chosen area. All teaching will be research-informed. You will be working alongside scientists who are at the forefront of research in their field.

YEAR ONE

Core or compulsory module(s)

// Cardiovascular and Respiratory Function in Health and Disease
// Data Interpretation and Evaluation of Science
// Foundations in Human Physiology and Cellular Biology
// The Gut, Liver and Drug Metabolism
// Infection, Inflammation and Repair
// Kidneys, Hormones and Fluid Balance
// Musculoskeletal Systems in Health and Disease
// All modules are worth 0.5 units.

Optional modules

// You will select one of the following 0.5 unit modules:
// Functional Anatomy and Medical Imaging
// Principles of Pathological Science
// Nutrition and Metabolism 1
YEAR TWO

Core or compulsory module(s)
- Molecular Basis of Disease
- The Nervous System and Neurological Diseases
- Pharmacology and Drug Action
- Statistics for Medical Scientists
- Techniques in Molecular Medicine
- All modules are worth 0.5 units.

Optional modules
- You will select three of the following:
  - Cancer Biology
  - Infection
  - Introduction to Applied Genomics
  - Introduction to Clinical Trials
  - Medicine and Society
  - Physics of the Human Body
  - Tissue Engineering and Regenerative Medicine
  - One of the three optional modules may be from another UCL department, as appropriate.

YEAR THREE

Core or compulsory module(s)
- Research Methods (0.5 unit)
- Research Project (1.0 unit)

Optional modules
- You will select five 0.5 unit options from further modules within the following areas:
  - Cancer
  - Clinical Trials
  - Infection and Immunity
  - Innovation
  - Pharmacology
  - Professional Experience
  - Regenerative Medicine
  - One of the five optional modules may be from another UCL department, as appropriate.

FINAL YEAR

Core or compulsory module(s)
- Research Project (2.5 units)

Optional modules
- Students select a total of 1.5 units of options from a wide range of modules, including modules from the following MSc programmes:
  - Advanced Biomedical Imaging
  - Drug Design
  - Clinical Drug Development
  - Clinical and Public Health Nutrition
  - Human Tissue Repair
  - Infection and Immunity
  - 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 problem solving and learning in small groups. Practicals and a research project support your training in laboratory skills. Combining online and face-to-face teaching means you take greater control of your academic development.

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 assessments. In years three and four you will be required to write project dissertations. Should you choose the professional experience module, you will write a reflective diary.

Your career
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.

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 also be able to adapt your skills to a variety of 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 in both the UK and overseas, 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, ready to take an active role in their learning, 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.

Placement
Being prepared for the professional world after graduation is important. The optional placement in year three will give you valuable experience in a field you are interested in, and in which you may want to work. You will learn how the professional environment operates, gain sector-specific knowledge, develop new ideas, and will be able to reflect on your actions and how the placement has benefited you.
Entry requirements

A LEVELS
Standard Offer: AAB. Biology and Chemistry required.
Contextual Offer: BBB. 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
Standard Offer: 36. A total of 17 points in three higher level subjects including Biology and Chemistry, with no score below 5.
Contextual Offer: 32. A total of 15 points in three higher level subjects, including Chemistry and Biology, with no score below 5.

CONTEXTUAL OFFERS – ACCESS UCL SCHEME
As part of our commitment to increasing participation from underrepresented groups, students may be eligible for a contextual offer as part of the Access UCL scheme. For more information see www.ucl.ac.uk/prospectus

OTHER QUALIFICATIONS
UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)
UCL Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL.

For more information see: www.ucl.ac.uk/upc.

TUITION FEES
The fees indicated are for undergraduate entry in the 2019/20 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. Fees for future years may be subject to an inflationary increase. The Overseas fees shown are the fees that will be charged to 2019/20 entrants for each year of study on the programme, unless otherwise indicated below.

// UK & EU: £9,250 (2019/20)
// Overseas: £24,760 (2019/20)

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

Additional costs
If you are concerned by potential additional costs for books, equipment, etc. on this programme, please get in touch with the relevant departmental contact (details given on this page). For students who undertake the professional experience module, additional costs may include travel and accommodation.

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/ucl-and-europe

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