APPLIED MEDICAL SCIENCES
BSc /
UCAS CODE: 9N53
2021 ENTRY

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

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 2021

**Location**
London, Bloomsbury

**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 high-level employment 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.

// You will be taught by world-leading clinicians as well as basic scientists. This fusion of science and medicine will give 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 assigned to a small group for weekly teaching sessions where you work together on creative tasks.

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, the study of infection, or regenerative medicine and nanotechnology.

Year three follows 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 the option of undertaking a self-organised one-month professional placement and will be engaged on a six month research project.

Upon successful completion of 360 credits, you will be awarded a BSc (Hons) in Applied Medical Sciences.

Please note that the list of modules given here is indicative. This information is published a long time in advance of enrolment and module content and availability is subject to change.

**YEAR ONE**

**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 15 credits.

**Optional modules**

You will select one of the following 15 credit modules:

// Functional Anatomy and Medical Imaging
// Principles of Pathological Science
// Nutrition and Metabolism I
// Fundamentals of Cellular and Molecular Biology from a virus’s perspective
// Cancer Medicine in Society
// Cardiorespiratory Exercise Physiology
// Medical Innovation & Enterprise I
YEAR TWO

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
- Cell and Molecular Biology

All modules are worth 15 credits

Optional modules

You will select two of the following 15 credit modules:

- Cancer Biology
- Immunology
- Infection
- Introduction to Applied Genomics
- Introduction to Clinical Trials
- Tissue Engineering and Regenerative Medicine
- Nutrition and Metabolism II
- Growth and Development
- Your Sensational Senses
- From Clock to Chaos: Biological Rhythms in Biology and Medicine
- Medical Bacteriology

One of the three optional modules may be from another UCL department, as appropriate.

FINAL YEAR

Compulsory module(s)

- Research Methods (15 credits)
- Bioinformatics in Applied Biomedical Science (15 credits)
- Research Project (30 credits)

Optional modules

You will select five of the following 15 credit modules:

- Stem Cell Therapies
- Neurogenetics to Neurodegeneration
- Nanotechnology in Medicine
- The Biomedical Entrepreneur
- Human Microbiome in Health and Disease
- Genetic Model Organisms
- Bioscience in Society
- Clinical Trials
- Advanced Medical Bacteriology: Challenges and Opportunities
- Where mind meets brain: Psychological and Brain Processes
- Regulatory Affairs in Healthcare

One of the five optional modules may be from another UCL department, as appropriate.

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.

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.

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 year three you will be required to write a project dissertation and, should you choose the professional experience module, a reflective diary on your placement.

Accessibility

Details of the accessibility of UCL buildings can be obtained from AccessAble. Further information can also be obtained from the UCL Student Support & Wellbeing team.

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.

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 a 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 zones.

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
Standard Offer: AAB. Biology grade A required, plus one from Chemistry, Mathematics or Physics.

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.

Contextual Offer: BBB. Biology required, plus one from Chemistry, Mathematics or Physics.

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 points. A total of 17 points in three higher level subjects including 6 in Biology and either Mathematics, Physics or Chemistry, with no score below 5.

Contextual Offer: 32 points. A total of 15 points in three higher level subjects including Biology plus one from Chemistry, Mathematics or Physics, 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 2021/22 academic year. The UK 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 2021/22 entrants for each year of study on the programme, unless otherwise indicated below.

// UK: £9,250 (2021/22)
// Overseas: £28,500 (2021/22)

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
For students who undertake the professional experience module, additional costs may include travel and accommodation.

A guide including rough estimates for these and other living expenses is included on the UCL Fees and funding pages. If you are concerned by potential additional costs for books, equipment, etc., please get in touch with the relevant departmental contact (details given on this page).

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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Department: Division of Medicine

UK withdrawal from the EU
For up-to-date information relating to specific key questions following the UK's withdrawal from the EU, please refer to: www.ucl.ac.uk/brexit.