Infection and Immunity BSc

This research-informed BSc programme delivers core biomedical science content as far as possible in an infection and immunity research context. Drawing on the world-class research carried out in the UCL Division of Infection & Immunity, it provides students with real insight into how discovery science is carried out at the very highest level.

Key information

Programme starts
September 2019

Location
London, Bloomsbury

Degree benefits

// You will learn the language and concepts of infection and immunity, be exposed to the latest thinking, gain insight into the scientific method and learn to critically assess scientific literature. You will gain scientific self-confidence and begin to think like a scientific investigator.

// You will gain an in-depth understanding of the role of the immune system and infectious agents in health and disease as well as insight into current research in the pathogenesis, prevention and control of infectious diseases, mechanisms of immunity and immune dysfunction.

// Infectious agents are fantastic tools for discovery in cell and molecular biology, immunology, human biology and evolution, making this BSc a great way to acquire a broad biomedical science knowledge.

// Throughout the programme emphasis will be placed on current research, communication and critical analysis.

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 mainly covers the function of human organs and systems. Tutorials and two programme-specific modules, Infection and Immunity: Meet the Labs, and Fundamentals of Cellular and Molecular Biology, from a virus’s perspective, provide an infection and immunity context.

Year two provides continued training in scientific skills with increasing focus on infection and immunity, particularly on reading and understanding current literature. One optional module is chosen from a selection covering topics in cell and molecular biology.

Year three covers the state-of-the-art in infection and immunity. You will gain critical skills, practice communicating science, improve your scientific self-confidence and start thinking like an investigator.

Modules draw on our current research. Tutorials provide opportunity to discuss recent papers. The best performing students carry out a laboratory research project, the remainder do a literature-based project.

YEAR ONE

Core or compulsory module(s)

- Foundations in Health and Disease
- Cardiovascular & Respiratory Function in Health and Disease
- The Gut, Liver and Drug Metabolism
- Musculoskeletal Systems in Health and Disease
- Infection, Inflammation and Repair
- Kidneys, Hormones and Fluid Balance
- Data Interpretation and Evaluation of Science
- Fundamentals of Cellular and Molecular Biology
- Infection and Immunity: Meet the Labs

Optional modules

- There are no optional modules in year one.

YEAR TWO

Core or compulsory module(s)

- Infection
- Immunology
- Infection and Immunity: Journal Club
- Molecular Basis of Disease
- Statistics for Medical Scientists
- Techniques in Molecular Medicine

Optional modules

- You will choose one of the following (the list may vary by year):
  - Fundamentals of Molecular Biology
  - Molecular Biology
  - Cell Biology
  - General Biochemistry of Health
  - The Principles of Cellular Control
  - Energy & Evolution
  - The Biology of Development
YEAR THREE

Core or compulsory module(s)

// Immunology in Health and Disease
// Infectious Agents
// Cellular Pathology
// Laboratory-based or literature-based research project

Optional modules

// You will choose two of the following:
// Immunodeficiency and Therapeutics
// Allergy, Autoimmunity and Transplantation
// Viruses and Disease
// Microbial Pathogenesis
// Neoplasia and its Treatment
// Mathematical Modeling in Biomedicine
// Global Eradication of Viruses
// Evolution and Infectious Diseases

Your learning

Teaching is delivered through a mix of blended learning, lectures, laboratory work, journal clubs and tutorials.

Most year one and some year two content is delivered through an innovative blended learning system; students learn at their own pace from short online videos followed up by small group tutorials to discuss content and explore topics in greater depth.

Assessment

We use a diverse selection of methods for formative and summative assessment: online and written examinations (question formats include: multiple-choice, short-answer, long answer, data analysis); poster presentations; coursework essays and commentaries; oral presentations; practical skills assessment; online participation; oral examination; research project dissertation.

Your career

Graduates of this programme will have acquired a robust and transferable skills set: critical analysis, data interpretation, communication skills and independent thinking. They will be well placed to apply to the most competitive postgraduate programmes and well equipped for a career in research, teaching, or associated biomedical professions.

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.

Beyond the stated entry requirements, we are interested in your motivation for choosing this degree over other biomedical sciences programmes, how your interest in infection and immunity was initiated and what it is that excites you about the idea of scientific research. Work experience in a scientific field will be seen as very positive but it is not a requirement.

The selection process will be based on the entry requirements being met in addition to a personal statement and references which demonstrate an excellent aptitude in the sciences and an interest in the field of Infection and Immunity.
Entry requirements

A LEVELS
Standard Offer: AAB. Biology and Chemistry required plus Mathematics preferred.

Contextual Offer: BBB. Biology and Chemistry required, plus Mathematics preferred.

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, plus Mathematics preferred, with no score below 5.

Contextual Offer: 32. A total of 15 points in three higher level subjects including Biology and Chemistry, plus Mathematics preferred, 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).

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 Infection and Immunity

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