PHYSICS WITH MEDICAL PHYSICS BSc
UCAS CODE: F351
2019 ENTRY

www.ucl.ac.uk/prospectus
This three-year programme offers an excellent education in a thriving field of science and engineering. The foundation in core physics together with the major areas of physics applied to medicine prepare you for a wide variety of careers inside and outside medical physics, including those in scientific research and industry.

### Key information

**Programme starts**

September 2019

**Location**

London, Bloomsbury

### Degree benefits

- We have close links to several major teaching hospitals and our staff work side-by-side with doctors and health professionals.
- With our highly rated research, the expert knowledge of our staff will be of direct benefit in the lectures and teaching sessions you attend.
- Most medical physics classes are small (fewer than 35 students) providing you with an informal, interactive teaching environment in which you can easily raise questions.
- The programme is accredited by the Institute of Physics (IOP) providing the first step to chartered physicist status.

### Accreditation

This programme is accredited by the Institute of Physics. Holders of accredited degrees can follow a route to Institute of Physics membership and the CharteredPhysicist (CPhys) professional qualification. Graduates of accredited integrated undergraduate Master's (MPhys or MSci) degrees have fulfilled the educational requirements for CPhys status, while graduates of accredited Bachelor's (BSc) degrees have partially fulfilled these requirements.

### 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).

We offer the option of studying a three-year Physics with Medical Physics BSc or a more in-depth four-year Medical Physics MSci programme. The first two years of study for both programmes are identical and transfer between the two is possible up to the end of the second year. We advise applying for the MSci initially which makes it easier to defer your decision.

In the first year, you will receive an exciting introduction to all the major medical imaging techniques employed in modern hospitals, including X-ray imaging, computed tomography, magnetic resonance imaging, ultrasound, nuclear isotope imaging and electroencephalography.

In your second year, you will explore the physics of the human body - covering such topics as blood flow, lung function and thermal regulation - and biophysics, in which you will focus on topics including biological polymers, gas and fluid transport processes, membranes and nerve signals.

During your final year you will choose three medical physics options from a range and will work on a major project with one of the department’s research groups.

#### YEAR ONE

**Core or compulsory module(s)**

- Atoms, Stars and the Universe
- Classical Mechanics
- Introduction to Medical Imaging
- Mathematical Methods I
- Mathematical Methods II
- Practical Skills
- Quantum Physics
- Statistical Thermodynamics
- Waves, Optics and Acoustics

**Optional modules**

- All first year modules are compulsory.

#### YEAR TWO

**Core or compulsory module(s)**

- Atomic and Molecular Physics
- Electricity and Magnetism
- Introduction to Biophysics
- Mathematical Methods III
- Physics of the Human Body
- Practical Physics
- Quantum Physics
- Statistical Thermodynamics

**Optional modules**

- All second year modules are compulsory.
Data taken from the 'Destinations of Leavers from Higher Education' survey undertaken by HESA looking at the destinations of UK and EU students in the 2013-2015 graduating cohorts six months after graduation.
Entry requirements

**A LEVELS**

**Standard Offer:** AAB. Mathematics and Physics required; grade A in Mathematics required.

**Contextual Offer:** ABB. Mathematics and Physics required; grade A in Mathematics required.

**GCSE**

English Language and Mathematics at grade C or 5. 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 score of 17 points in three higher level subjects including Mathematics and Physics, with no score lower than 5. Grade 6 in higher level Mathematics required

**Contextual Offer:** 34. A score of 16 points in three higher level subjects including Mathematics and Physics, with no score lower than 5. Grade 6 in higher level Mathematics required.

**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: £26,740 (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**

Dr Peter Munro

Email: p.munro@ucl.ac.uk
Telephone: +44 (0)20 7679 7760
Department: Medical Physics and Biomedical Engineering

**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