BIOLOGICAL PHYSICS MSc / 
2019/20 ENTRY

www.ucl.ac.uk/graduate/
This new MSc in Biological Physics aims to prepare students to enter the field of Biological Physics and Quantitative Biology, and gain an understanding of the application of these disciplines in industrial or academic research settings.

### Degree summary

Students will gain broad background knowledge of cell and developmental biology, and physical theories and experimental physics techniques applied to biological systems. Students will gain theoretical and working knowledge of techniques from physics and engineering used in biological physics research, including optical microscopy, microfabrication, and data analysis. Students will be further prepared for the research environment with a series of transferable skills classes and seminars.

The new Biological Physics MSc brings together expertise in biological and physical sciences at UCL. The UCL Institute for the Physics of Living Systems has recently been created to enhance the teaching and research opportunities in interdisciplinary physics and life sciences at UCL.

The necessity to cross traditional disciplinary boundaries is particularly true of biology where there is a growing realisation that understanding the physics underlying biological phenomena is critical in order to rationally develop next generation treatments for disease and solutions for food security in a globalised world.

Students are immersed in an active research environment from the outset, interacting with experienced researchers in the laboratory and familiarising themselves with state of the art biological and biophysical research techniques.

Teaching is delivered through a combination of lectures, seminars and workshops and by an element of problem-centred learning. Taught modules are assessed by problem sets and examinations; ‘hands-on’ modules (e.g. Microfabrication and Microscopy for Biophysics) and research projects are assessed by presentations, assessed reports and the dissertation.

### Degree structure

**Mode:** Full-time: 1 year  
**Location:** London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of five compulsory taught modules (75 credits), optional modules one of which must be a biological module (45 credits) and a research project (60 credits). More detailed information can be found on the [Departmental programme web page](#).

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.

#### COMPULSORY MODULES

- Biosciences Research Skills
- Microfabrication and Microscopy for Biophysics
- Molecular Biophysics
- Physical Models of Life
- The Scientific Literature

#### OPTIONAL MODULES

- Students must select one of the biological modules and complete the 45 credits by selecting one or two options from the optional modules.
- Students must select one of the following biological modules:
  - Advanced Molecular Cell Biology
  - Principles of Biology
- Students must complete their 45 credits by selecting one or two options from the following modules:
  - Advanced Topics in Statistical Mechanics
  - Biomaterials
  - Biomechanics and Biostructures
  - Introduction to Statistical Data Science
  - Programming Foundations for Medical Image Analysis
  - Statistical Models and Data Analysis

#### RESEARCH PROJECT/REPORT

- All students undertake an independent research project which culminates in a report of 10,000 words. The projects will be multidisciplinary, built around the cutting edge research across the faculties of MAPS, Life Sciences and Engineering.
**Your career**

Physics based careers embrace a broad range of areas. Graduates of MSc programmes at UCL go on to a variety of careers as research associates, consultants, and engineers requiring technical and quantitative analysis skills.

**Employability**

This programme will prepare students for an increasingly interdisciplinary work and research environment in biological physics and quantitative biology and their applications in industrial research or academic settings.
Entry requirements

A minimum of an upper second-class Bachelor's degree in a relevant discipline from a UK university or an overseas qualification of an equivalent standard.

English language proficiency level

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency.

The level of English language proficiency for this programme is: Standard.

Information about the evidence required, acceptable qualifications and test providers is provided at: www.ucl.ac.uk/graduate/english-requirements

Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines.

When we assess your application we would like to learn:

- why you want to study Biological Physics at graduate level
- why you want to study Biological Physics at UCL
- what particularly attracts you to the chosen programme
- how your academic and professional background meets the demands of this challenging programme
- where you would like to go professionally with your degree.

Together with essential academic requirements, the personal statement is your opportunity to illustrate whether your reasons for applying to this programme match what the programme will deliver.

There is an application processing fee for this programme of £75 for online applications and £100 for paper applications. Further information can be found at: www.ucl.ac.uk/prospective-students/graduate/taught/application.

FEES AND FUNDING 2019/20 ENTRY

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<th>Country</th>
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<tr>
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The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information on fee status, fee increases and the fee schedule can be viewed on the UCL Students website.

Full details of funding opportunities can be found on the UCL Scholarships website: www.ucl.ac.uk/scholarships

APPLICATION DEADLINE

All applicants: 26 July 2019

Details on how to apply are available on the website at: www.ucl.ac.uk/graduate/apply

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/brexit