The Modelling Biological Complexity MRes is designed for students wishing to develop the skills to apply mathematical, computational and physical science techniques to real biological problems. The programme provides a broad overview of cutting edge research at the interface of the life, mathematical and physical sciences.

**Degree summary**

Foundation courses use innovative teaching methods for interdisciplinary research to provide essential background knowledge in computational, mathematical and physical techniques and a broad introduction to core biological concepts and systems. A range of interdisciplinary research-driven projects follow in which students gain experience of different research techniques and a range of areas of biological interest.

- CoMPLEX is UCL’s centre for interdisciplinary research in the life sciences. It brings together life and medical scientists with computer scientists, mathematicians, physicists and engineers to tackle the challenges arising from complexity in biology and medicine.
- CoMPLEX collaborates with 250+ supervisors from 40 UCL Departments and maintains strong links with leading UK/International research institutions, charities and industrial partners e.g. AstraZeneca, British Heart Foundation, CRUK, Francis Crick Institute, GlaxoSmithKline, Microsoft Research and Renishaw. As a result CoMPLEX students have a vast range of projects to choose from and the opportunity to network with a plethora of scientific partners.
- Peer-to-peer learning is a crucial part of the training, and students will take part in cohort activities, such as, mentoring events, a seminar series, outreach groups and an annual retreat.

The programme is delivered through a combination of lectures, laboratory work, case presentations, seminars, tutorials and project work. Student performance is assessed by essays, mini projects, oral and poster presentations, a computer programming and biological database task, web development, the research project and an end-of-year viva.

**Degree structure**

**Mode:** Full-time: 1 year

**Location:** London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of four compulsory modules: foundation courses module, transferable skills module (20%), three mini projects (40%) and a research (summer) project (40%).

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.

**CORE MODULES**

- Modelling Biological Complexity: Foundation Course covering machine learning, statistics and mathematical modelling applied to biomedical systems (non credit bearing)
- Transferable and Generic Skills
- Mini projects
- Research (summer) Project

**OPTIONAL MODULES**

- There are no optional modules for this programme.

**DISSERTATION/REPORT**

- All students undertake an independent research (summer) project, which culminates in a dissertation of up to 15,000 words, a short presentation and an oral examination.
Your career

After passing the MRes, students may have the opportunity to progress onto a PhD at UCL.

Employability

CoMPLEX has built upon relationships with partners within academia and industry, to develop our existing CoMPLEX programme, so that it continues to be designed specifically to provide training that meets market needs. Graduates have excellent publication outputs, this, together with CoMPLEX’s international reputation means that graduates are and will continue to be recognised when entering the job market. 70% of recent graduates have taken up positions in research centres in the UK and abroad. As small number have pursued careers in science policy analysis, cyber security, science teaching, statistical and mathematical consultancy, technology consultancy, or in management and the financial sector.
Entry requirements

A minimum of an upper second-class Bachelor's degree in any area of the mathematical, physical, computer, engineering or life sciences from a UK university or an overseas qualification of an equivalent standard. For students from the life science, some mathematics experience is necessary (e.g. a minimum of an ‘A’ grade of A Level mathematics).

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.

FEES AND FUNDING 2019/20 ENTRY

// UK: £5,210 (FT)
// EU: £5,210 (FT)
// Overseas: £25,150 (FT)

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.

Limited funding is available for this programme - applications from self-funding candidates are also welcome.

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

Centre Administrator

Email: complex.admin@ucl.ac.uk

Telephone: +44 (0)20 3108 9992/9993

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