DATA SCIENCE FOR RESEARCH IN HEALTH AND BIOMEDICINE MSc / 2018/19 ENTRY

www.ucl.ac.uk/graduate/healthinfo
The UCL programme in Data Science for Research in Health and Biomedicine covers computational and statistical methods as applied to problems in data-intensive medical research. Students learn techniques that are transforming medical research and creating exciting new commercial opportunities. Our recent graduates, many of whom begin paid internships while completing the MSc, have moved on to roles in industry and academia.

**Degree summary**

Students learn how to link and analyse large complex datasets. They design and carry out complex and innovative clinical research studies that take advantage of the increasing amount of available data about the health, behaviour and genetic make-up of small and large populations. The content is drawn from epidemiology, computer science, statistics and other fields, including genetics.

Data science is an exciting area with a dynamic job market, including in healthcare. Our graduates have gone on to work for a range of companies, including large research organisations and small start-ups, while others are working in health care or pursuing their interests in universities.

The lecturers on this programme are international experts in health data science and students will learn about cutting-edge research projects. The collaboration is part of the Farr Institute, a network of centres of excellence created to enhance the UK’s strength in data-intensive research. This MSc will draw on that collaboration, giving students access to the most advanced research in the field.

We work closely with a range of employing organisations to ensure that our graduates have the best possible preparation for a career in data science. This includes offering industry-sponsored dissertations for selected students.

The programme is delivered by clinicians, statisticians and computer scientists from UCL, including leading figures in data science. We use a combination of lectures, practical classes and seminars. A mixture of assessment methods is used including examinations and coursework.

**Degree structure**

Mode: Full-time: 1 year; Part-time: 2 years; Flexible: 2-5 years
Location: London, Bloomsbury
Students undertake modules to the value of 180 credits. The programme consists of five core modules (75 credits), three optional modules (45 credits) and a dissertation/report (60 credits).
A Postgraduate Diploma (120 credits) is offered.
A Postgraduate Certificate (60 credits) is offered.

**CORE MODULES**
- Principles of Epidemiology Applied to Electronic Health Records Research
- Data Management for Health Research
- Statistics for Epidemiology and Public Health
- Statistical Methods in Epidemiology
- Topics in Health Data Science

**OPTIONAL MODULES**
- Advanced Statistics for Records Research
- Database Systems
- Information Retrieval and Data Mining
- Principles of Health Informatics
- Machine Learning in Healthcare and Biomedicine
- Statistics for Interpreting Genetic Data
- Electronic Health Records
- Clinical Decision Support Systems

**DISSERTATION/REPORT**
- All students undertake an independent research project which culminates in a dissertation. Project Proposal 20% (2,000 words), Journal Article 80% (6,000 words).
Your career

Students on this programme will be passionate about research and know that, in the 21st century, some of the most exciting, stimulating and productive research is carried out using large collections of data acquired in big collaborative endeavours or major public or private initiatives. We hope that graduates will build on that passion and, together with the experience gained on the programme, will go on to develop careers as entrepreneurs, scientists and managers, working in industry, academia and healthcare.

Employability

The programme is designed to meet a need, identified by the funders of health research and by a number of industrial organisations and healthcare agencies, for training in the creation, management and analysis of large datasets. This programme is practical, cross-disciplinary and closely linked to cutting-edge research and practice at UCL and UCL’s partner organisations. Data science is arguably the most rapidly growing field of employment at the moment and employers recruiting in health data science include government agencies, technology companies, consulting and research firms as well as scientific organisations. A number of employers are supporting the programme in different ways, including providing paid internships to selected students.
Entry requirements

A minimum of an upper second-class Bachelor’s degree, or equivalent, in a clinical or a scientific discipline with a significant computational or mathematical element.

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 Data Science for Research in Health and Biomedicine at graduate level
// why you want to study Data Science for Research in Health and Biomedicine at UCL
// what particularly attracts you to this programme
// how your personal, academic and professional background meets the demands of a 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.

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

FEES AND FUNDING 2018/19 ENTRY

// UK: £9,850 (FT), £4,950 (PT)
// EU: £9,850 (FT), £4,950 (PT)
// Overseas: £24,860 (FT), £12,380 (PT)

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 Current Students website.

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

APPLICATION DEADLINE

All applicants: 27 July 2018

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/eu-referendum