HEALTH DATA SCIENCE MSc
2019/20 ENTRY
www.ucl.ac.uk/graduate/
Health Data Science MSc

This programme covers computational and statistical methods as applied to problems in data-intensive medical research. As part of this programme, you will gain an understanding of techniques that are transforming medical research and creating exciting new commercial opportunities.

Degree summary

You will learn how to link and analyse large complex datasets. You will also 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 programme draws on a range of areas, including epidemiology, computer science, statistics and other fields, such as 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 you will learn about cutting-edge research projects. Programme content is aligned with the newly-founded Health Data Research UK (HDR UK), a multi-funder UK institute for health and biomedical informatics research, led by UCL in London. 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 employers 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.

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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: up to 5 years
Location: London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of five compulsory 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.

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
- Principles of Epidemiology Applied to Electronic Health Records Research
- Data Management for Health Research
- Basic Statistics
- Regression Modelling
- Principles of Health Data Science

OPTIONAL MODULES
- Advanced Statistics for Records Research
- Database Systems
- Information Retrieval and Data Mining
- Essentials of Informatics for Healthcare Systems
- 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

Today, 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. As a student on this programme, we will work with you to develop your passion and interest in this area of research. You will gain skills for a career as an entrepreneur, scientist or manager, working in industry, academia or 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 a 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 Health Data Science at graduate level
- why you want to study Health Data Science 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.

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

// UK: £10,150 (FT), £5,100 (PT)
// EU: £10,150 (FT), £5,100 (PT)
// Overseas: £25,610 (FT), £12,750 (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 Students website.

Fees for flexible, modular study are charged pro-rata to the appropriate full-time Master's fee taken in an academic session.

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

Application Deadline

All applicants: 6 September 2019

Details on how to apply are available on the website at:

www.ucl.ac.uk/graduate/apply

Contact

Programme Administrator

Email: courses-IHI@ucl.ac.uk

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