LONDON'S GLOBAL UNIVERSITY

PRECISION MEDICINE MSc / 2019/20 ENTRY

www.ucl.ac.uk/graduate/
This MSc will equip you with state-of-the-art knowledge relating to mechanistic understanding of disease and technologies that detect, diagnose and specifically treat causal factors of disease. Delivered by clinical and scientific experts from across UCL, as well as visiting industry experts, the interdisciplinary programme is applicable to life sciences graduates, including those with qualifications in medicine, who wish to pursue a career in industry or academia.

**Degree summary**

You will develop advanced knowledge in all aspects of precision medicine including genomics, bioinformatics, structural biology, genetics and epigenetics of disease and their precision diagnosis and treatment, biomedical imaging techniques, nanomedicines; generation and analysis of big data. You will gain awareness of the context in which precision medicine is being applied in healthcare, research and industry. You will also develop a range of intellectual, practical and transferable skills essential for a career in this field.

UCL, in partnership with UCL Hospitals, is an internationally renowned and productive centre with established strengths in translating pioneering scientific research into tangible treatments. The results of REF2014 show that UCL enjoys the greatest amount of “world leading” (4*) research in Medicine and Biological sciences. This was a tremendous achievement for the Division of Medicine, which led the return in Clinical Medicine for UCL. In Clinical Medicine, UCL was ranked first in the UK (according to Research Fortnight’s Power Rankings), a testament to our research strength in the Division of Medicine.

The UCL Division of Medicine has significant expertise in the field of precision medicine. The division has pioneered multidisciplinary research and successfully translated innovative research into useful clinical benefit. Students on the MSc will have the opportunity to interact and conduct research with leading groups in the field.

The UCL Division of Medicine research expertise includes: inflammation, internal medicine, metabolism, respiratory, liver and digestive health, medicinal chemistry, computational drug design, neuronal development and signalling, cell cycle control, intensive care medicine, regenerative medicine, tissue engineering, nanomedicine, stem cells, mitochondrial biology and cancer.

The programme is delivered through a combination of lectures, tutorials, self study, practical sessions and discussion groups. The research project forms one third of the programme. Each of the taught modules is assessed by unseen written examination and coursework. The research project is assessed by the dissertation and viva.

**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.
A Postgraduate Diploma (120 credits) is also offered.
A Postgraduate Certificate (60 credits) is also 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**
- The programme consists of five core modules (75 credits), three optional modules (45 credits) and a research project (60 credits).
- Bioinformatics and Structural Biology
- The Genetics and Epigenetics of disease
- Advanced Biomedical Imaging Techniques I
- Precision Diagnosis for Precision Medicine
- Multimodal and Stochastic Imaging

**OPTIONAL MODULES**
- Select four optional modules.
- Translational Biomedical Imaging of Disease & Therapy I
- Machine Learning in Health Care (Blended Learning)
- Advanced Computational Biology
- Mathematical Modeling in Biomedicine
- Novel Therapies: From concept to clinical translation
- Personalised Medicine
- Nanomedicines
- Practical Laboratory Research Skills

**DISSERTATION/REPORT**
- All MSc students undertake an independent research project which can take the form of a wet lab/computer modelling based project.
Your career

The MSc will provide an excellent background for those looking to establish a career in biotech, pharma, national research laboratories and NHS agencies. The knowledge and transferable skills delivered will also be useful for those who intend to pursue academic research or medical studies.
Entry requirements

An upper second-class Bachelor of Science honours degree in a relevant subject from a UK university or an overseas qualification of an equivalent standard, or an appropriate professional qualification or relevant work experience.

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 Precision Medicine at graduate level
- why you want to study Precision Medicine at UCL
- what particularly attracts you to the chosen programme
- how your academic and professional background meets the demands of this 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: £13,450 (FT), £6,840 (PT)
EU: £13,450 (FT), £6,840 (PT)
Overseas: £25,610 (FT), £12,900 (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: 26 August 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