

MSc Precision Medicine

COURSE FEATURES

The MSc in Precision Medicine is open to graduates in the Health Sciences and Healthcare professionals who hold a minimum 2H1 in an undergraduate Degree. This 90-credit MSc can be taken as a full-time, 1-year programme. In addition, there are options to complete the 60-credit Graduate Diploma in Precision Medicine. The content formulation has been carried out in conjunction with industry leaders.

- Masters Taught Degree; Full-Time (1 year FT, 2 year PT)
- Content formulation in conjunction with industry leaders
- Traditional Didactic Teaching with online, synchronous and asynchronous learning
- Exit and Entry Strategies at Graduate Diploma/Cert level
- NFQ Level 9, 90 ECTS Credits

COURSE DESCRIPTION

Upskilling and diversifying the skillsets of a generation of life scientists, biomedical scientists and healthcare professionals to effectively understand and utilize this data driven approach is essential to realizing this transformation. Students will be taught the fundamentals of clinical and translational research, applications in clinical diagnostics and Biomarker development and how precision medicine is being applied in the areas of oncology, drug development and infectious disease. Introductory modules in translational bioinformatics and biostatistics have been added to provide students new to these areas with interdisciplinary skill sets to draw insights and value from precision medicine data and to communicate their findings across different domains. The program will be delivered by clinical and scientific experts from UCD, experienced Bioinformaticians and computer scientists, statisticians and experts in public health as well as industry leaders in precision medicine.

COURSE DETAILS

Major code	X954/X955/X957/X957
Duration	1 Year/2 Year
Schedule	Full-Time/Part-Time
Next intake	September

WHO SHOULD TAKE THIS COURSE?

Applicants should have successfully completed an undergraduate medical degree or primary degree programme (minimum of a 2.1 honours or equivalent) in a biological or chemical science. This includes a B.Sc. in Biotechnology, Biochemistry, Microbiology, Genetics, Neuroscience, Physiology, Pharmacology, Medicinal Chemistry or an equivalent qualification.

If English is not the applicant's native language, unless the primary degree was read through English medium in an English-speaking country, an English language qualification is required. English language qualifications include a minimum score of 6.5, overall, in the International English Language Testing System (IELTS). Other evidence of proficiency in English may be accepted such as the Cambridge Certificate, TOEFL or Pearson's Test of English, as per the standard UCD requirements.

FEES

www.ucd.ie/students/fees



TEACHING & LEARNING

Genomics and precision medicine represents a growing area of science and medicine. A greater understanding of the role a person's genes, behaviours and environment plays in their general health is becoming an increasingly important part of the global healthcare and biomedical research ecosystem. We envision the MSc programme to be structured into a series of core and optional strands composed of 5 and 10 credit modules coupled with a 30-credit research project.

The program will be offered as a Graduate Diploma for students completing 60 credits worth of taught modules without carrying out the 30-credit project. This structure which combines clinical and translational research, diagnostics and biomarker development, applications in the areas of oncology, drug discovery, and infectious disease and introductory data analysis skills allied to their application in industry and clinically relevant areas will cater for a broad audience while providing graduates with excellent career opportunities.

This programme will be delivered on the University College Dublin Belfield campus with some learning delivered via online resources.

As part of a strategic partnership with UCD to enhance genomic medicine, Genuity Science, a genomics and data-sourcing, analytics and insights organization (<https://genuitysci.com/>) will provide content and teaching to the course.

On successful completion of the programme students will be able to:

1. Demonstrate a comprehensive knowledge and understanding of the current state-of-the-art in the area of genomically informed precision medicine and its applications and potential in diagnostics development, cancer and infectious disease.
2. Demonstrate a comprehensive knowledge and understanding of the role of genetics in cohort driven drug discovery to further advance the discovery of new and highly innovative biotech products.
3. Demonstrate knowledge of the processes, procedures, policies and techniques used in clinical biochemistry and diagnostic laboratories
4. Demonstrate advanced knowledge of clinical & translational research methods.
5. Demonstrate a knowledge and understanding of the ethical and privacy issues associated with the use of genomic and phenotypic data in both clinical, research and industrial settings.
6. The role of key stakeholders in the life cycle of precision medicine including, researchers, clinicians, patient groups policy makers, CROs and Biopharma groups, policy makers, regulators, CROs and biopharma.



CONTACT

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More information on this course:
www.ucd.ie/medicine

Apply for this course:
www.ucd.ie/apply