

Course Information Sheet for entry in 2022-23: MSc in Genomic Medicine



About the course

The MSc in Genomic Medicine is a full-time, one-year cross-disciplinary programme, which benefits from world-leading expertise in genomic science across the University of Oxford coupled with direct links to clinical and translational medicine.

The course is designed to equip students from diverse academic and workplace backgrounds with knowledge of the fundamental principles, technologies and basis of genomic science and how this can be translated for the benefit of human health, economics and broader society.

The course seeks to promote:

- a multi-disciplinary approach to genomic medicine that will provide students with the awareness and skill sets needed to engage with relevant specialists and technologies for the future development and delivery of genomic medicine;
- insights into the processing, analysis, interpretation and delivery of genomic knowledge at all stages following data generation, both within bioinformatic and clinical care pipelines and at the end-user interface, critical for delivering the translational potential of genomic medicine; and
- the concept of 'gene to patient' in its broadest sense, encompassing education and training on the wider impact of genomic medicine – for example on clinical trials, drug development and interface with the life sciences industry – and equipping students with the skills needed to develop this in the future.

Course structure

Core modules

The following four modules are taken by all students in the first term:

- Fundamentals in Human Genetics and Genomics
- Genomics of Common and Rare Inherited Diseases
- Omic Technologies and their Application to Genomic Medicine
- Bioinformatics, Statistics and Data Interpretation in Genomic Analysis

Elective modules

In the second term, students take three elective modules from the following six options, with the option to attend further modules that are not formally assessed.

Two modules will be selected from set A:

- A1 Molecular Pathology and Precision Medicine
- A2 Advanced Quantitative Methods (Bioinformatics and Statistics)
- A3 Genome Engineering and Gene-based Therapeutics
- A4 Single Cell Application of –Omic Approaches

One module will be selected from set B:

- B1 Genomics in Clinical Practice
- B2 Application of Genomics for Therapeutics, Vaccinology and Industry

Research project

The final term will focus on a research project undertaken for a twelve to fourteen week period. Approximately 30 projects will be offered by academic research groups and affiliated clinical supervisors in Oxford, as well as industry placements where possible. Students will have a named supervisor with experience in supervision of postgraduate students. Students will produce a written dissertation based on their research project of 10,000-12,000 words.

Taught generic research skills

This will comprise generic research and transferrable skills training with an emphasis on good research practice. Short courses and workshops will be offered throughout the duration of the course.

Teaching format

Modules will comprise a mix of lectures, tutorials, structured learning, individual and group-based assignments, problem-solving tasks and independent learning. The balance of contact teaching hours and self-directed learning is expected to be approximately equal. During the first term, each student will have the opportunity to attend 8 small-group tutorial sessions (2 per core module).

Supervision

The allocation of graduate supervision for this course is the responsibility of the Nuffield Department of Medicine and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. A supervisor may be found outside the Nuffield Department of Medicine.

All MSc students will have an individual named Academic Advisor assigned on enrolment who will provide guidance in choice of research project and plans, support any specific training needs and also provide pastoral support. They will usually meet students at least twice per term. In addition, students will have formal and informal supervision from their host group during their research project.

Termly graduate supervision reporting will be completed in Michaelmas and Hilary term by the Academic Advisor and in Trinity term by the research project supervisor.

Assessment**Summative assessment of the course**

Core module content is assessed by two exam papers with a mix of question types, taken at the start of the second term and contributing 30% of the final course mark. Towards the end of the second term, elective modules are assessed by extended essays or an equivalent piece of written work, with each chosen module (3 in total) contributing 10% of the final mark. The research project is assessed by a 10,000-12,000 word dissertation contributing 40% of the final mark.

Students will be required to pass the summative assessment elements for both core and elective modules, and will have one opportunity to retake/revise each component if needed within a one-month period.

Formative assessment of the course

All modules will include formative assignments devised to test the ability to understand, apply and extend the learning from the module in a variety of formats and through a mix of group/individual work. Formative assessment in the first term will be carefully designed to prepare students for the core module exam papers. Successful completion of these will ensure all students have attained a sufficient level of understanding of fundamental material to complete the elective and research elements of the course. Formative assessment of the research project will include submission of a project proposal during the second term and an oral presentation reporting on progress eight weeks after starting the project.

Changes to courses

The University will seek to deliver this course in accordance with the description set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. These may include significant changes made necessary by a pandemic (including Covid-19), epidemic or local health emergency. For further information, please see the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>) and our page on changes to courses (<http://www.graduate.ox.ac.uk/coursechanges>).

Expected length of course

	Full Time Only
Expected length	12 months

Costs

Annual fees for entry in 2022-23

Fee status	Annual Course fees
Home	£15,970
Overseas	£38,410

Further details about fee status eligibility can be found on the fee status webpage (<http://www.graduate.ox.ac.uk/feestatus>).

Course fees are payable each year, for the duration of your fee liability (your fee liability is the length of time for which you are required to pay course fees). For courses lasting longer than one year, please be aware that fees will usually increase annually. Information about how much fees and other costs may increase is set out in the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>).

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional cost information (below), course fees do not cover your accommodation, residential costs or other living costs. They also don't cover any additional costs and charges that are outlined in the additional cost information.

Additional cost information

There are no compulsory elements of this course that entail additional costs beyond fees and living costs. However, please note that, depending on your choice of research topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

Living costs

In addition to your course fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for 2022-23 are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

Likely living costs

	Likely living costs for 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
Food	£290	£410	£2,610	£3,690	£3,480	£4,920
Accommodation	£680	£810	£6,120	£7,290	£8,160	£9,720
Personal items	£135	£260	£1,215	£2,340	£1,620	£3,120
Social activities	£45	£120	£405	£1,080	£540	£1,440
Study costs	£45	£100	£405	£900	£540	£1,200
Other	£20	£55	£180	£495	£240	£660
Total	£1,215	£1,755	£10,935	£15,795	£14,580	£21,060

When planning your finances for any future years of study at Oxford beyond 2022-23, you should allow for an estimated increase in living expenses of 3% each year.

More information about how these figures have been calculated is available at www.graduate.ox.ac.uk/livingcosts.

Document accessibility

If you require an accessible version of the document please contact Graduate Admissions and Recruitment by email (graduate.admissions@admin.ox.ac.uk) or via the online form (<http://www.graduate.ox.ac.uk/ask>).