

## Course Information Sheet for entry in 2025-26: MSc in Modelling for Global Health



### Course facts

Mode of study	Full Time Only
Expected length	12 months

### About the course

The MSc in Modelling for Global Health is a full-time one-year course which will train a new generation of mathematical modellers with cutting edge multi-disciplinary skills to support global health decision making processes at sub-national, national and international levels.

A strong connection with the Oxford Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine ensures that the portfolio of training provided on this MSc retains the ability to bridge tropical medicine research to policy and implementation. Tropical medicine is a major research theme at the Nuffield Department of Medicine, and quantitative methods have been identified by NDM as a key area for expansion and training. This MSc course will enhance the connection between state-of-the-art technical research and frontline clinical and laboratory science in the Global Health arena.

The course will aim to develop your:

- repertoire of skills in mathematical and economic modelling including, for example, scientific programming, global health financing, genetics and evolution, spatial analysis and model fitting, related cutting-edge bioinformatics and analytics
- breadth of knowledge of current challenges and issues in global health
- range of techniques and tools for communication with key stakeholders from policy, implementation, commercial and research sectors.

MSc students can participate fully in the NDM research community. For example, there is a weekly journal club led by NDM DPhil students from the Oxford Centre for Tropical Medicine and Global Health to which all MSc students are invited.

### Course Structure

#### Core Modules

The first term will consist of topics on research methods, an overview of major global health challenges and foundations of mathematics required. Modules include:

- Mathematics for Modellers
- Introduction to R for Modellers
- Medical Statistics
- Foundations in Global Health
- Research Skills and Professional Practice
- Introduction to Health Economics
- Mathematical Modelling of Infectious Diseases
- Model Communication

#### Optional Modules

During the second term, in addition to some continued core content, you will select three optional modules for further study, including:

- Spatial Analysis of Public Health Data
- Global Health Financing
- Pharmacokinetic-Pharmacodynamic Modelling
- Model Fitting and Uncertainty
- Malaria Modelling for Strategy Design
- Introduction to Genetics and Evolution for Infectious Diseases Modellers
- Individual Based Models in C++
- Translational Science and Policy Analysis

### Placement Project and Dissertation

During your third term, you will embark on a funded placement (of up to eight weeks) that will involve participation in a global health project in (or related to) a source limited setting. Students will be allocated a placement project based on their preference and in close consultation with the course academic team to ensure it aligns with their desired career trajectory. These placements, which can be carried out in national and international locations, will call upon the skills and topics you will have covered during the first two terms of the course. It is intended you will:

- apply knowledge and skills you have gained in first two terms to a global health research project
- experience the challenges and opportunities for conducting real research
- work as a productive member of a team
- appropriately contextualise your research (ie learn about the context within which the research is conducted).

The research project placement will then form the basis of your dissertation (in the form of a draft publication appropriate for submission to a peer-reviewed journal) to be submitted eight weeks after your return from placement. The learning outcomes of this will be to:

- critically analyse relevant literature
- pose appropriate research questions
- demonstrate sound use of methodology to address questions posed
- appropriately interpret findings
- outline ethical issues involved in the research
- produce a draft publication appropriate for submission to a peer-reviewed journal reporting the placement research findings.

### **Training**

A series of workshops will be held across the academic year, designed to build skills in academic writing and critical appraisal, and foster competencies to support the successful completion of summative assessment outputs (eg scientific reports, policy pieces, journal articles). These sessions to be designed with the technical and numerical nature of the writing tasks in mind.

### **Attendance**

The course is full-time and requires attendance in Oxford. Full-time students are subject to the University's Residence requirements.

### **Resources to support your study**

As a graduate student, you will have access to the University's wide range of world-class resources including libraries, museums, galleries, digital resources and IT services.

The Bodleian Libraries is the largest library system in the UK. It includes the main Bodleian Library and libraries across Oxford, including major research libraries and faculty, department and institute libraries. Together, the Libraries hold more than 13 million printed items, provide access to e-journals, and contain outstanding special collections including rare books and manuscripts, classical papyri, maps, music, art and printed ephemera.

The University's IT Services is available to all students to support with core university IT systems and tools, as well as many other services and facilities. IT Services also offers a range of IT learning courses for students, to support with learning and research.

You will have access to the department's IT support, University library services such as the Radcliffe Science Library and the Cairns Library based at the John Radcliffe Hospital. To facilitate teaching of technical material, the course has high specification video conferencing technology and high specification laptops will be provided to all incoming students and access to cloud or cluster computing for computer intensive work whilst they are students on the course.

### **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. Under exceptional circumstances a supervisor may be found outside the Nuffield Department of Medicine.

You will be assigned an academic advisor who will support you through the duration of the course. You should try and meet with your academic advisor at least twice each term.

You will also have a placement advisor in Hilary term, related to your chosen placement, who you will meet with for an hour each week.

### **Assessment**

You will be assessed in the following ways:

**For all optional modules**

You will be required to sit three summative assessments in the form of a written report/essay. These will be structured like a scientific paper and must address a series of questions/issues raised in the respective exam question(s).

**Based on your completed placement project and subject to agreement by your supervisor**

An electronically submitted dissertation, in the form of a draft journal paper, plus supplementary files.

**Changes to this course**

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 you commence your course. These might include significant changes made necessary by any pandemic, 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>).

## Costs

### Annual fees for entry in 2025-26

Fee status	Annual Course fees
Home	£25,300
Overseas	£53,340

### Information about course fees

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. As part of the course requirements, you will need to choose a research placement project for your dissertation, which, depending on your choice of topic and the research required to complete it, may require travel and research expenses – these will be covered by the department and students will not incur additional expenses. The amount will be agreed with each placement host in advance (as appropriate for the location) and will include reasonable costs to cover visas, travel to and from the placement host site, accommodation for the duration of the on-site portion of the placement period, and reasonable research-related costs.

## Living costs

In addition to your course fees and any additional course-specific costs, 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 the 2025-26 academic year 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 for one month

	Lower range	Upper range
<b>Food</b>	£330	£515
<b>Accommodation</b>	£790	£955
<b>Personal items</b>	£200	£335
<b>Social activities</b>	£45	£100
<b>Study costs</b>	£40	£90
<b>Other</b>	£20	£40
<b>Total</b>	£1,425	£2,035

### Likely living costs for nine months

	Lower range	Upper range
<b>Food</b>	£2,970	£4,635
<b>Accommodation</b>	£7,110	£8,595
<b>Personal items</b>	£1,800	£3,015
<b>Social activities</b>	£405	£900
<b>Study costs</b>	£360	£810
<b>Other</b>	£180	£360
<b>Total</b>	£12,825	£18,315

### Likely living costs for twelve months

	Lower range	Upper range
<b>Food</b>	£3,960	£6,180
<b>Accommodation</b>	£9,480	£11,460
<b>Personal items</b>	£2,400	£4,020
<b>Social activities</b>	£540	£1,200
<b>Study costs</b>	£480	£1,080
<b>Other</b>	£240	£480
<b>Total</b>	£17,100	£24,420

When planning your finances for any future years of study at Oxford beyond the 2025-26 academic year, it is suggested that you allow for potential increases in living expenses of 4% each year – although this rate may vary depending on the national economic situation.

More information about how these figures have been calculated is available at [www.graduate.ox.ac.uk/livingcosts](http://www.graduate.ox.ac.uk/livingcosts).

## Document accessibility

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