

## Course Information Sheet for entry in 2026-27: MSc in Mathematical Sciences



### Course facts

|                 |                |
|-----------------|----------------|
| Mode of study   | Full Time Only |
| Expected length | 9 months       |

### About the course

The MSc in Mathematical Sciences provides a broad and flexible training in mathematical sciences and gives students with a keen interest in the mathematical sciences the chance to study a selection of interesting and varied master's-level courses.

Oxford has a world-class reputation in the mathematical sciences and this MSc, known as the Oxford Master's in Mathematical Sciences (OMMS), offers you the opportunity to join Oxford's current fourth-year undergraduates and to work with an international group of peers, including other mathematical leaders of the future.

This course is not suitable for students whose primary focus is mathematical finance. These students should apply to the [MSc in Mathematical and Computational Finance](https://www.ox.ac.uk/admissions/graduate/courses/msc-mathematical-and-computational-finance) (<https://www.ox.ac.uk/admissions/graduate/courses/msc-mathematical-and-computational-finance>).

### Course structure

An overview of the course structure is provided below. Details of the compulsory and optional elements of the course are provided in the *Course components* section of this page.

This course draws on subjects in mathematics, statistics and computer science: from number theory, geometry and algebra to genetics and mathematical physiology; from probability and mathematical geoscience to data mining and machine learning. You have the opportunity to choose from many options, tailoring the programme to your individual interests and requirements. This course runs from the beginning of October through to the end of June.

You can expect to learn a range of mathematics and/or statistics and to use this knowledge in the solution of complex problems in the mathematical sciences. Your dissertation will provide an opportunity to develop research techniques as well as presentation and scientific communication skills.

You will attend at least six units' worth of courses (with one unit normally corresponding to a 16-hour lecture course supported by classes) in addition to writing a dissertation (worth two units). You will be encouraged to work collaboratively in classes, to develop your understanding of the material. Those wishing to extend themselves further might take one or two additional courses.

Depending on how many courses you take in total and how they split between terms, you can expect to attend two, three or four (or, in exceptional cases, five) lecture courses per term. Each lecture course normally has two one-hour lectures per week supplemented by four 90-minute classes per term.

The remainder of your study time in the first two terms should be spent on self-study, consolidating the material covered in lectures, working through the problem sheets set for each class and working independently on your dissertation. In the third term you will mostly work independently on your revision for exams, although guidance will also be available to help structure your studies.

The MSc offers a substantial opportunity for independent study and research in the form of a dissertation. A dissertation gives students the opportunity to develop broader transferable skills in the processes of organising, communicating, and presenting their work, and aims to equip students for further research or for a wide variety of other careers. You will be expected to give a short presentation on your dissertation at the end of the second term.

### Attendance

The course is full-time and requires attendance in Oxford. Full-time students are subject to the [University's Residence requirements](https://www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements) (<https://www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements>).

### Resources to support your study

As a graduate student, you will have access to the University's wide range of 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, as well as [guidance on what technology to bring with you as a new student](https://www.it.ox.ac.uk/what-to-bring) (<https://www.it.ox.ac.uk/what-to-bring>) at Oxford.

The Mathematical Institute's home is the purpose-built Andrew Wiles Building, opened in 2013. The building provides ample teaching facilities for lectures and classes. The mezzanine level is home to six lecture theatres and six classrooms, as well as a café and study spaces. There is also a student workroom located on this level which contains a number of computers and desks to facilitate quiet study. The Mathematical Institute has Wi-Fi available throughout the building and offers IT support for students.

Students taking courses or dissertation topics in the relevant subject area will have access to the various facilities at the Department of Statistics. The building is newly refurbished and contains spaces for study and collaborative learning, including a large interaction and social area on the ground floor. The Department of Statistics has two lecture rooms and two classrooms, as well as an IT teaching lab. Students also have access to the IT and library resources at the Department of Statistics.

## Supervision

The allocation of graduate supervision for this course is the responsibility of the Mathematical Institute and the Department of Statistics 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 Mathematical Institute and the Department of Statistics.

You will have the opportunity to meet with your dissertation supervisor several times over the first two terms. This may be a mix of individual and group supervision.

## Assessment

The majority of lecture courses on the MSc are assessed by invigilated written examinations, although a minority of courses are assessed by a take-home exam known as a mini-project. The dissertation work culminates in a written report that constitutes two of the minimum eight units you are required to take to complete the course.

## Course components

### Compulsory study

You will write a dissertation under the guidance of a supervisor. This will typically involve investigating and writing in a particular area of mathematical sciences, without the requirement (while not excluding the possibility) of obtaining original results.

### Options

You will be required to take between six and eight option courses which you will be able to choose from a range in mathematics, physics, and statistics.

Not all options will be available every year, but the following courses have been available in previous years:

- C1.1 Model Theory
- C1.2 Gödel's Incompleteness Theorems
- C1.3 Analytic Topology
- C1.4 Axiomatic Set Theory
- C2.2 Homological Algebra
- C2.3 Representation Theory of Semisimple Lie Algebras
- C2.4 Infinite Groups
- C2.5 Non-Commutative Rings
- C2.6 Introduction to Schemes
- C2.7 Category Theory
- C3.1 Algebraic Topology
- C3.2 Geometric Group Theory
- C3.3 Differentiable Manifolds
- C3.4 Algebraic Geometry
- C3.5 Lie Groups
- C3.6 Modular Forms
- C3.7 Elliptic Curves

- C3.8 Analytic Number Theory
- C3.9 Computational Algebraic Topology
- C3.10 Additive Number Theory
- C3.11 Riemannian Geometry
- C3.12 Low-Dimensional Topology and Knot Theory
- C4.1 Further Functional Analysis
- C4.3 Functional Analytic Methods for PDEs
- C4.6 Fixed Point Methods for Nonlinear PDEs
- C4.7 Fourier Analysis
- C4.9 Optimal Transport and Partial Differential Equations
- C5.1 Solid Mechanics
- C5.2 Elasticity and Plasticity
- C5.4 Networks
- C5.5 Perturbation Methods
- C5.6 Applied Complex Variables
- C5.7 Topics in Fluid Mechanics
- C5.9 Mathematical Mechanical Biology
- C5.11 Mathematical Geoscience
- C5.12 Mathematical Physiology
- C6.1 Numerical Linear Algebra
- C6.2 Continuous Optimisation
- C6.4 Finite Element Method for PDEs
- C6.5 Theories of Deep Learning
- C7.1 Theoretical Physics
- C7.4 Introduction to Quantum Information
- C7.5 General Relativity I
- C7.6 General Relativity II
- C7.7 Random Matrix Theory
- C8.1 Stochastic Differential Equations
- C8.2 Stochastic Analysis and PDEs
- C8.3 Combinatorics
- C8.4 Probabilistic Combinatorics
- C8.7 Optimal Control
- SC1 Stochastic Models in Mathematical Genetics
- SC2 Probability and Statistics for Network Analysis
- SC4 Advanced Topics in Statistical Machine Learning
- SC5 Advanced Simulation Methods
- SC6 Graphical Models
- SC7 Bayes Methods
- SC9 Probability on Graphs and Lattices
- SC10 Algorithmic Foundations of Learning
- SC11 Climate Statistics

You may also be able to choose from some option courses in Computer Science, but this is reliant on the approval of the department and priority will be given to students based in the Department of Computer Science.

## Changes to this course

The University will seek to deliver this course in accordance with the description set out in this course page. 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. The safety of students, staff and visitors is paramount and major changes to delivery or services may have to be made if a pandemic, epidemic or local health emergency occurs. In addition, in certain circumstances, for example due to visa difficulties or because the health needs of students cannot be met, it may be necessary to make adjustments to course requirements for international study.

Where possible your academic supervisor will not change for the duration of your course. However, it may be necessary to assign a new academic supervisor during the course of study or before registration for reasons which might include illness, sabbatical leave, parental leave or change in employment.

For further information please see our page on [changes to courses](https://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses) (<https://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses>) and the [provisions of the student contract](https://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract) (<https://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract>) regarding changes to courses.

## Costs

### Annual course fees

The fees for this course are charged on an annual basis.

### Fees for the 2026-27 academic year at the University of Oxford

| Fee status | Annual Course fees |
|------------|--------------------|
| Home       | £16,220            |
| Overseas   | £43,730            |

### What do course fees cover?

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional information section 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 costs information below.

### How long do I need to pay 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 fees will usually increase annually, as explained in the University's [Terms and Conditions \(//www.ox.ac.uk/students/new/contract\)](https://www.ox.ac.uk/students/new/contract).

Our [fees and other charges \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges) pages provide further information, including details about:

- [course fees and fee liability \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/courses-fees-and-liability\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/courses-fees-and-liability);
- [how your fee status is determined \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/fee-status\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/fee-status); and
- [changes to fees and other charges \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/changes-to-fees-and-charges\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/changes-to-fees-and-charges).

Information about how much fees and other costs will usually increase each academic year is set out in the University's [Terms and Conditions \(//www.ox.ac.uk/students/new/contract\)](https://www.ox.ac.uk/students/new/contract).

### Additional costs

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

### 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.

### Living costs for full-time study

For the 2026-27 academic year, the range of likely living costs for a single, full-time student is between £1,405 and £2,105 for each month spent in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford. Depending on your circumstances, you may also need to budget for the [costs of a student visa and immigration health surcharge \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs) and/or [living costs for family members or other dependants \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs#field\\_listing\\_content\\_content-item--2\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs#field_listing_content_content-item--2), that you plan to bring with you to Oxford (if [dependant visa eligibility criteria \(//www.ox.ac.uk/students/visa/before/family\)](https://www.ox.ac.uk/students/visa/before/family) are met).

### Further information about living costs

The current economic climate and periods of high national inflation in recent years make it harder to estimate potential changes to the cost of living over the next few years. For study in Oxford beyond the 2026-27 academic year, it is suggested that you budget for potential increases in living expenses of around 4% each year – although this rate may vary depending on the national economic situation.

A breakdown of likely living costs for one month during the 2026-27 academic year are shown below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford.

**Likely living costs for one month in Oxford during the 2026-27 academic year**

|                          | Lower range | Upper range |
|--------------------------|-------------|-------------|
| <b>Food</b>              | £315        | £545        |
| <b>Accommodation</b>     | £825        | £990        |
| <b>Personal items</b>    | £160        | £310        |
| <b>Social activities</b> | £50         | £130        |
| <b>Study costs</b>       | £35         | £90         |
| <b>Other</b>             | £20         | £40         |
| <b>Total</b>             | £1,405      | £2,105      |

For information about how these figures have been calculated as well as tables showing the likely living costs for nine and twelve months, please refer to the [living costs \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs) page of our website.

**Document accessibility**

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