

Course Information Sheet for entry in 2023-24: MSc in Statistical Science



About the course

The MSc in Statistical Science is a twelve-month full-time taught master's degree running from October to September each academic year. The MSc has a particular focus on modern computationally-intensive theory and methods.

The MSc in Statistical Science will aim to train you to solve real-world statistical problems. When completing the course you should be able to choose an appropriate statistical method to solve a given problem of data analysis, implement the analysis on a computer and communicate your results clearly and succinctly.

The MSc offers a broad high-level training in applied and computational statistics, statistical machine learning, and the fundamental principles of statistical inference. Training is delivered through mathematically demanding lectures and problems classes, hands-on practical sessions in the computer laboratory, report writing and dissertation supervision. You will have around three months to work on your dissertation with guidance from your supervisor, offering you a substantial opportunity for self-directed study and research.

Students take a mixture of core courses and optional courses. The core courses are compulsory and involve practical components that students must complete.

Course modules

The core and option modules may vary from year to year, and the lists below may provide an idea of a typical offering.

The core courses available for entry in 2022-23 were:

- Applied Statistics
- Foundations of Statistical Inference
- Statistical Programming
- Computational Statistics
- Statistical Machine Learning.

The option modules available for entry in 2022-23 entry were:

- Stochastic Models in Mathematical Genetics
- Probability and Statistics for Network Analysis
- Algorithmic Foundations of Learning
- Advanced Topics in Statistical Machine Learning
- Advanced Simulation Methods
- Bayes Methods.

Please note that the modules listed may not be the same for 2023-24 entry.

Pattern of learning and teaching

You will attend nine units worth of courses (with one unit corresponding to a 16-hour lecture course or equivalent) in addition to writing a dissertation. Depending on how the courses you take split between terms, you can expect to attend four or five (or, in exceptional cases, three or six) courses per term. Most courses have two one hour lectures per week supplemented by four classes per term, though for some courses there are associated practical sessions instead of, or in addition to, lectures or classes. The remainder of your study time in Michaelmas, Hilary and most of Trinity Term should be spent on self-study, consolidating on the material covered in lectures, working through the assignments set for each class and working on practical assignments. Students are expected to write reports on practical assignments during part of the Christmas and Easter vacations, as well as revising the material covered the previous term.

Dissertation

The MSc offers a substantial opportunity for independent study and research in the form of a dissertation. The main period for dissertation work is June to September (though you may do some preparatory work for your dissertation earlier in the year) and

during this time students should expect to work hours that are equivalent to full-time working hours, although extra hours may occasionally be needed.

The dissertation is undertaken under the guidance of a supervisor and will typically involve investigating and writing in a particular area of statistical science, without the requirement (while not excluding the possibility) of obtaining original results. A dissertation gives students the opportunity to develop broader transferable skills in the processes of organising, communicating, and presenting their work, and will equip students well for further research or for a wide variety of other careers.

Supervision

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

Assessment

You will be assessed on your performance in a number of written examinations in May/June, through practical coursework set during the year, and by the quality and depth of your dissertation (done mostly over the period June to early September).

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 2023-24

Fee status	Annual Course fees
Home	£14,410
Overseas	£32,760

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. 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 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 2023-24 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
Food	£300	£470
Accommodation	£715	£860
Personal items	£180	£305
Social activities	£40	£90
Study costs	£35	£80
Other	£20	£35
Total	£1,290	£1,840

Likely living costs for nine months

	Lower range	Upper range
Food	£2,700	£4,230
Accommodation	£6,435	£7,740
Personal items	£1,620	£2,745
Social activities	£360	£810
Study costs	£315	£720
Other	£180	£315
Total	£11,610	£16,560

Likely living costs for twelve months

	Lower range	Upper range
Food	£3,600	£5,640
Accommodation	£8,580	£10,320
Personal items	£2,160	£3,660
Social activities	£480	£1,080
Study costs	£420	£960
Other	£240	£420
Total	£15,480	£22,080

When planning your finances for any future years of study at Oxford beyond 2023-24, it is suggested that you allow for potential increases in living expenses of 5% or more each year – although this rate may vary significantly depending on how the national economic situation develops.

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>).