Course Information Sheet for entry in 2020-21
MSc in Mathematics and Foundations of Computer Science

About the course

The MSc in Mathematics and Foundations of Computer Science, run jointly by the Mathematical Institute and the Department of Computer Science, focuses on the interface between pure mathematics and theoretical computer science.

The mathematical side concentrates on areas where computers are used, or which are relevant to computer science, namely algebra, general topology, number theory, combinatorics and logic. Examples from the computing side include computational complexity, concurrency, and quantum computing. Students take a minimum of five options and write a dissertation.

The course is suitable for those who wish to pursue research in pure mathematics (especially algebra, number theory, combinatorics, general topology and their computational aspects), mathematical logic, or theoretical computer science. It is also suitable for students wishing to enter industry with an understanding of mathematical and logical design and concurrency.

The course will consist of examined lecture courses and a written dissertation. The lecture courses will be divided into two sections:

- Section A: Mathematical Foundations
- Section B: Applicable Theories

Each section will be divided into schedule I (basic) and schedule II (advanced). Students will be required to satisfy the examiners in at least two courses taken from section B and in at least two courses taken from schedule II. The majority of these courses should be given in the first two terms.

During Trinity term and over the summer students should complete a dissertation on an agreed topic. The dissertation must bear regard to course material from section A or section B.

It is intended that a major feature of this course is that candidates should show a broad knowledge and understanding over a wide range of material. Consequently, each lecture course taken will receive an assessment upon its completion by means of a test based on written work. Students will be required to pass five courses that include two courses from section B and two at the schedule II level - these need not be distinct - and the dissertation.

The course runs from the beginning of October through to the end of September, including the dissertation.

Supervision

The allocation of graduate supervision for this course is the responsibility of the Mathematical Institute and/or the Department of Computer Science 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/or the Department of Computer Science.

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. For further information, please see the University's Terms and Conditions.

Expected length of course

Mode of study	Full Time Only
Expected length	12 months

Costs

Annual fees for entry in 2020-21

Fee status	Annual Course fees
Home/EU (including Islands)	£10,145
Overseas	£26,405

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.

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 2020-21 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 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	£270	£385	£2,430	£3,465	£3,240	£4,620
Accommodation	£630	£760	£5,670	£6,840	£7,560	£9,120
Personal items	£130	£245	£1,170	£2,205	£1,560	£2,940
Social activities	£45	£110	£405	£990	£540	£1,320
Study costs	£40	£95	£360	£855	£480	£1,140
Other	£20	£55	£180	£495	£240	£660
Total	£1,135	£1,650	£10,215	£14,850	£13,620	£19,800

When planning your finances for any future years of study at Oxford beyond 2020-21, 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.