

Course Information Sheet for entry in 2016-17

MSc in Mathematics and Foundations of Computer Science

About the course

The MSc in Mathematics and Foundations of Computer Science, run jointly by the Mathematics 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 the 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 shall be divided into Schedule I (basic) and Schedule II (advanced). Candidates shall 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, and it must demonstrate relevance to some area of science, engineering, industry or commerce.

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. Candidates will be required to pass five courses, of which at least two shall be from Schedule II, and not all of which may be from the same section.

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

Changes to courses

The University will seek to deliver each course in accordance with the descriptions 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

12 months

Annual fees for entry in 2016-2017

| Fee Status | Tuition fee | College fee | Total annual fees |
|--------------------------------|-------------|-------------|-------------------|
| Home/EU (including islands) | £5,910 | £2,933 | £8,843 |
| Overseas | £16,280 | £2,933 | £19,213 |

The fees shown above are the annual tuition and college fees for this course for entry in the 2016-17 academic year; for courses lasting longer than one year, please be aware that fees will usually increase annually. For details, please see our guidance on likely increases to fees and charges.

Tuition and college 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 tuition and college fees).

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 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 2016-17 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 | £265 | £298 | £2,384 | £2,673 | £3,177 | £3,565 |
| Accommodation | £469 | £667 | £4,221 | £6,002 | £5,627 | £8,006 |
| Personal items | £119 | £244 | £1,073 | £2,187 | £1,429 | £2,915 |
| Social activities | £60 | £107 | £539 | £960 | £718 | £1,280 |
| Study costs | £36 | £73 | £314 | £661 | £418 | £880 |
| Other | £19 | £44 | £197 | £410 | £265 | £547 |
| Total | £970 | £1,433 | £8,727 | £12,894 | £11,636 | £17,191 |

When planning your finances for any future years of study in Oxford beyond 2016-17, you should allow for an estimated increase in living expenses of 2% each year.

More information about how these figures have been calculated is available at www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs.

21 October 2015