If you require an accessible version of the document, please contact Undergraduate Admissions by email (uao.comms@admin.ox.ac.uk) or via the online form (http://www.ox.ac.uk/ask).

Mathematics and Computer Science Course Information Sheet for entry in 2025

This joint degree offers the opportunity to combine an appreciation of mathematical reasoning with an understanding of computing.

Mathematics is a fundamental intellectual tool in computing, but computing is increasingly used as a key component in mathematical problem-solving.

The course concentrates on areas where mathematics and computing are most relevant to each other, emphasising the bridges between theory and practice.

It offers opportunities for students to develop a deeper understanding of the mathematical foundations of their subject. The course helps students to acquire a familiarity with the mathematics of application areas where computers can solve otherwise intractable problems. It also gives mathematicians access to both a practical understanding of the use of computers and a deeper understanding of the limits on the use of computers in their own subject.

The first year and part of the second year of the course are spent acquiring a firm grounding in the core topics from both subjects. Students are then free to choose options from a wide range of mathematics and computer science subjects.

In the second year, students take part in a group design practical, which may be sponsored by industry.

A typical week
The typical weekly timetable for a student in Mathematics and Computer Science is similar to that for Computer Science or Mathematics.

Tutorials are usually 2-4 students with a tutor. Class sizes may vary depending on the options you choose. There would usually be around 8-15 students though classes for some of the more popular papers may be larger. Lectures may be up to 120 students.

Most tutorials are delivered by experts in their field, who have years of experience in teaching and research. Some teaching may also be delivered by postdoctoral researchers or postgraduate students who are studying at doctoral level.

To find out more about how our teaching year is structured, visit our Academic Year page.

Course structure

Mathematics and Computer Science can be studied for three years, leading to the award of a BA degree, or for four years, leading to the award of Master of Mathematics and Computer Science (MMathCompSci).

The fourth year of the Mathematics and Computer Science degree provides the opportunity to study advanced topics and undertake a more in-depth research project.

Students do not need to choose between the three-year and four-year options when applying. All students apply for the four-year course, and then decide by the end of their third year whether they wish to continue to the fourth year. In order to proceed into the fourth year (part C), students will need to achieve a 2:1 or higher classification at the end of their third year.

YEAR 1

COURSES	ASSESSMENT
Core Mathematics (50%) • Analysis • Continuous maths • Groups and group actions • Introduction to complex numbers • Introduction to university maths • Linear algebra • Probability **Core Computer Science (50%)** • Design and analysis of algorithms • Functional programming • Introduction to proof systems • Imperative programming	Five exam papers

---

YEAR 2

COURSES	ASSESSMENT
Core Computer Science (25%) • Algorithms and data structures • Group design practical • Models of computation **Core Mathematics (30%)** • Complex analysis • Linear algebra • Metric spaces	Eight exam papers (four Computer Science and four Mathematics)

YEAR 2

Options in Mathematics (20%)

Options in Computer Science (25%)

YEAR 3

COURSES	ASSESSMENT
Mathematics Options including: - Number theory - Communication theory **Computer Science** Options including: - Artificial Intelligence - Computational complexity - Computer-aided formal verification - Computer graphics - Computer security - Geometric modelling - Lambda calculus and types - Machine learning - Quantum information	Up to eight exam papers

YEAR 4

COURSES	ASSESSMENT
Mathematics Advanced options including: - Category theory - Lie groups - Model theory - Probabilistic combinatorics **Computer Science** Advanced options including: - Advanced security - Concurrent algorithms and data structures - Computational biology	Written or take-home exams plus a dissertation or project report.

YEAR 4	
- Computational game theory - Computational learning theory - Deep learning in healthcare - Foundations of self-programming agents - Geometric deep learning - Graph representation learning	

Fees

These annual fees are for full-time students who begin this undergraduate course here in 2025.

Information about how much fees and other costs may increase is set out in the University's Terms and Conditions.

Please note that while the University sets out its annual fees as a single figure, this is a combined figure for both your University and college fees. More information is provided in your Terms and Conditions.

Fee status	Annual Course fees
Home (UK, Republic of Ireland, Channel Islands & Isle of Man)	£9,535
Overseas (including most EU students – see Note below)	£59,260

Note: Irish nationals living in the UK or Ireland, EU, other EEA, and Swiss nationals who have been granted settled or pre-settled status in the UK under the EU settlement scheme are eligible for 'Home fee' status and student loan support, subject to meeting residency requirements. We will contact you directly if we need further information from you to determine your fee status.

Please refer to the Undergraduate fee status pages for more information.

Living costs

Living costs for the academic year starting in 2025 are estimated to be between £1,425 and £2,035 for each month you are in Oxford. Our academic year is made up of three eight-week terms, so you would not usually need to be in Oxford for much more than six months of the year but may wish to budget over a nine-month period to ensure you also have sufficient funds during the holidays to meet essential costs. For further details please visit our living costs webpage.

Living costs breakdown

	Per month		Total for 9 months	
	Lower range	Upper range	Lower range	Upper range
Food	£330	£515	£2,970	£4,635
Accommodation (including utilities)	£790	£955	£7,110	£8,595
Personal items	£200	£335	£1,800	£3,015

	Per month		Total for 9 months	
Social activities	£45	£100	£405	£900
Study costs	£40	£90	£360	£810
Other	£20	£40	£180	£360
Total	**£1,425**	**£2,035**	**£12,825**	**£18,315**

In order to provide these likely living costs (which are rounded to the nearest £5), the University and the Oxford SU conducted a living costs survey to complement existing student expenditure data from a variety of sources, including the UK government's Student Income and Expenditure Survey and the National Union of Students (NUS).

The current economic climate and high national rate of inflation make it very hard to estimate potential changes to the cost of living over the next few years. When planning your finances for any future years of study in Oxford beyond 2025-26, it is suggested that you allow for potential increases in living expenses of around 4% each year – although this rate may vary depending on the national economic situation.

Additional Fees and Charges Information for Mathematics and Computer Science

There are no compulsory costs for this course beyond the fees shown above and your living costs.