

Course Information Sheet for entry in 2022-23: MSc in Theoretical and Computational Chemistry



About the course

The three primary activities in theoretical and computational chemistry are development of new theory, implementation of methods as reliable software, and application of such methods to a host of challenges in chemical and related sciences. The MSc aims to train new research students to be able to deliver these outcomes.

The MSc consists of a set of training modules and a short project. The compulsory core modules are:

- Mathematics
- Quantum Mechanics
- Statistical Mechanics
- Introduction to Programming
- Statistics
- Methods of computer simulation
- Electronic structure theory
- Software Development.

You will also select a number of optional courses (currently five), which may include:

- Applied Computational Chemistry
- Biomolecular Simulation
- Mathematics II
- Quantum Mechanics in Condensed Phases
- Intermolecular Potentials
- Chemical Informatics
- Reaction Dynamics
- Advanced Quantum Mechanics
- Advanced Statistical Mechanics.

Each module consists of several lectures/classes and a piece of assessed coursework.

In addition, you will also be required to undertake one short project with an allocated supervisor. This typically takes a few weeks in either the Easter or Summer vacations. A list of possible supervisors and projects will be provided to select a topic from.

Supervision

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

Assessment

Assessments are spread out over the academic year.

Each module is assessed by a piece of coursework or a test.

The assessment of the short project will be based on a report that you will submit.

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	10 months

Costs

Annual fees for entry in 2022-23

Fee status	Annual Course fees
Home	£10,970
Overseas	£28,560

Further details about fee status eligibility can be found on the fee status webpage (<http://www.graduate.ox.ac.uk/feestatus>).

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 2022-23 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

	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	£290	£410	£2,610	£3,690	£3,480	£4,920
Accommodation	£680	£810	£6,120	£7,290	£8,160	£9,720
Personal items	£135	£260	£1,215	£2,340	£1,620	£3,120
Social activities	£45	£120	£405	£1,080	£540	£1,440
Study costs	£45	£100	£405	£900	£540	£1,200
Other	£20	£55	£180	£495	£240	£660
Total	£1,215	£1,755	£10,935	£15,795	£14,580	£21,060

When planning your finances for any future years of study at Oxford beyond 2022-23, 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.

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>).