

## Course Information Sheet for entry in 2025-26: MSc in Theoretical and Computational Chemistry



### Course facts

Mode of study	Full Time Only
Expected length	12 months

### 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. You will take the following compulsory core modules:

- Mathematics I
- Quantum Mechanics
- Statistical Mechanics
- Introduction to Programming
- Applied 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 Reaction Dynamics
- Advanced Quantum Mechanics
- Advanced Statistical Mechanics
- Machine-learning in Materials Chemistry.

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

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.

### Attendance

The course is full-time and requires attendance in Oxford. Full-time students are subject to the University's Residence requirements.

### Resources to support your study

As a graduate student, you will have access to the University's wide range of world-class resources including libraries, museums, galleries, digital resources and IT services.

The Bodleian Libraries is the largest library system in the UK. It includes the main Bodleian Library and libraries across Oxford, including major research libraries and faculty, department and institute libraries. Together, the Libraries hold more than 13 million printed items, provide access to e-journals, and contain outstanding special collections including rare books and manuscripts, classical papyri, maps, music, art and printed ephemera.

The University's IT Services is available to all students to support with core university IT systems and tools, as well as many other services and facilities. IT Services also offers a range of IT learning courses for students, to support with learning and research.

All students will be allocated their own desk, with a computer. Access to the departmental IT network is open at all times and extensive software is available. Departmental computers, software licences and the network are supported by the department's IT staff. Network access is offered at all times via the VPN.

Internet access to all relevant recent journals is available. Books and older journal issues are available in the University science library, located within five minutes' walking distance.

In the event of difficulty, pastoral care can be offered by your college, by the project supervisor, the course leadership team and/or the director of studies.

### **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 written examination.

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

### **Changes to this course**

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 you commence your course. These might include significant changes made necessary by any pandemic, 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>).

## Costs

### Annual fees for entry in 2025-26

Fee status	Annual Course fees
Home	£15,300
Overseas	£41,250

### 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 and any additional course-specific costs, 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 the 2025-26 academic year 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	£330	£515
Accommodation	£790	£955
Personal items	£200	£335
Social activities	£45	£100
Study costs	£40	£90
Other	£20	£40
<b>Total</b>	<b>£1,425</b>	<b>£2,035</b>

### Likely living costs for nine months

	Lower range	Upper range
Food	£2,970	£4,635
Accommodation	£7,110	£8,595
Personal items	£1,800	£3,015
Social activities	£405	£900
Study costs	£360	£810
Other	£180	£360
<b>Total</b>	<b>£12,825</b>	<b>£18,315</b>

### Likely living costs for twelve months

	Lower range	Upper range
Food	£3,960	£6,180
Accommodation	£9,480	£11,460
Personal items	£2,400	£4,020
Social activities	£540	£1,200
Study costs	£480	£1,080
Other	£240	£480
<b>Total</b>	<b>£17,100</b>	<b>£24,420</b>

When planning your finances for any future years of study at Oxford beyond the 2025-26 academic year, it is suggested that you allow for potential increases in living expenses of 4% each year – although this rate may vary depending on the national economic situation.

More information about how these figures have been calculated is available at [www.graduate.ox.ac.uk/livingcosts](http://www.graduate.ox.ac.uk/livingcosts).

## Document accessibility

If you require a more accessible version of this document please contact Graduate Admissions and Recruitment by email ([graduate.admissions@admin.ox.ac.uk](mailto:graduate.admissions@admin.ox.ac.uk)) or via the online form (<http://www.graduate.ox.ac.uk/ask/form>).