

Course Information Sheet for entry in 2026-27: 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 theory, implementation of methods, and application to challenges in chemical and related sciences. The MSc will train students to deliver these outcomes.

Course structure

An overview of the course structure is provided below. Details of the compulsory and optional elements of the course are provided in the *Course components* section of this page.

The MSc consists of a set of training modules and a short project.

You will also select a number of optional courses (currently five). 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 in the Summer vacation. 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](https://www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements). ([//www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements](https://www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements))

Resources to support your study

As a graduate student, you will have access to the University's wide range of 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, as well as [guidance on what technology to bring with you as a new student](https://www.it.ox.ac.uk/what-to-bring) (<https://www.it.ox.ac.uk/what-to-bring>) at Oxford.

You will have access to dedicated office space and dedicated IT facilities. 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.

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.

If pastoral care is needed, support can be offered by the project supervisor, the course leadership team and/or the director of studies.

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.

Course components

Compulsory study

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 be required to undertake one short project with an allocated supervisor.

Options

You will select a number of optional courses (currently five). The optional modules 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.

Changes to this course

The University will seek to deliver this course in accordance with the description set out in this course page. 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. The safety of students, staff and visitors is paramount and major changes to delivery or services may have to be made if a pandemic, epidemic or local health emergency occurs. In addition, in certain circumstances, for example due to visa difficulties or because the health needs of students cannot be met, it may be necessary to make adjustments to course requirements for international study.

Where possible your academic supervisor will not change for the duration of your course. However, it may be necessary to assign a new academic supervisor during the course of study or before registration for reasons which might include illness, sabbatical leave, parental leave or change in employment.

For further information please see our page on [changes to courses](https://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses) (<https://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses>), and the [provisions of the student contract](https://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract) (<https://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract>) regarding changes to courses.

Costs

Annual course fees

The fees for this course are charged on an annual basis.

Fees for the 2026-27 academic year at the University of Oxford

Fee status	Annual Course fees
Home	£16,220
Overseas	£43,730

What do course fees cover?

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional information section 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 costs information below.

How long do I need to pay 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 fees will usually increase annually, as explained in the University's [Terms and Conditions \(//www.ox.ac.uk/students/new/contract\)](https://www.ox.ac.uk/students/new/contract).

Our [fees and other charges \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges) pages provide further information, including details about:

- [course fees and fee liability \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/courses-fees-and-liability\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/courses-fees-and-liability);
- [how your fee status is determined \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/fee-status\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/fee-status); and
- [changes to fees and other charges \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/changes-to-fees-and-charges\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/changes-to-fees-and-charges).

Information about how much fees and other costs will usually increase each academic year is set out in the University's [Terms and Conditions \(//www.ox.ac.uk/students/new/contract\)](https://www.ox.ac.uk/students/new/contract).

Additional costs

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 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.

Living costs for full-time study

For the 2026-27 academic year, the range of likely living costs for a single, full-time student is between £1,405 and £2,105 for each month spent in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford. Depending on your circumstances, you may also need to budget for the [costs of a student visa and immigration health surcharge \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs) and/or [living costs for family members or other dependants \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs#field_listing_content_content-item--2\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs#field_listing_content_content-item--2), that you plan to bring with you to Oxford (if [dependant visa eligibility criteria \(//www.ox.ac.uk/students/visa/before/family\)](https://www.ox.ac.uk/students/visa/before/family) are met).

Further information about living costs

The current economic climate and periods of high national inflation in recent years make it harder to estimate potential changes to the cost of living over the next few years. For study in Oxford beyond the 2026-27 academic year, it is suggested that you budget for potential increases in living expenses of around 4% each year – although this rate may vary depending on the national economic situation.

A breakdown of likely living costs for one month during the 2026-27 academic year are shown below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford.

Likely living costs for one month in Oxford during the 2026-27 academic year

	Lower range	Upper range
Food	£315	£545
Accommodation	£825	£990
Personal items	£160	£310
Social activities	£50	£130
Study costs	£35	£90
Other	£20	£40
Total	£1,405	£2,105

For information about how these figures have been calculated as well as tables showing the likely living costs for nine and twelve months, please refer to the [living costs \(//www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs\)](https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs) page of our website.

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).