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).

Materials Science Course Information Sheet for entry in 2025

Materials Science is an interdisciplinary subject, spanning the physics and chemistry of matter, engineering applications and industrial manufacturing processes.

Modern society is heavily dependent on advanced materials, for example:

- lightweight composites for more efficient vehicles
- optical fibres for telecommunications
- and silicon microchips for the continuing revolution in digital technology.

Materials scientists study the relationships between the structure and properties of a material and how it is made. They also develop new materials and devise advanced processes for manufacturing them. Materials Science is vital for developments in nanotechnology, quantum computing, energy storage and nuclear energy, as well as medical technologies such as bone replacement materials and drug delivery.

This diverse programme spans the subject from its foundations in physics and chemistry to the mechanical, electrical, magnetic and optical properties of materials, and the design, manufacture and applications of metals, alloys, ceramics, polymers, composites and biomaterials. This work is supported by excellent laboratory and teaching facilities.

The programme also offers an opportunity to develop an introductory understanding of entrepreneurship (learning how to write a business plan, raise capital and start a company). There are also voluntary options to learn a foreign language with the University's Language Centre.

The Oxford Materials degree includes in its fourth year the special feature of an eight-month full-time research project. For this fourth year research project you will join a research team either here at Oxford in one of the strongest Departments of Materials in the UK or, occasionally, at an overseas university or in an industrial laboratory (additional costs may be associated with a project outside Oxford). You will learn how to break down a complex problem, design an experiment or model, manage a project and communicate your results. These research skills are transferable to many career paths and are valued highly by employers.

The MEng degree is accredited by the Institute of Materials, Minerals and Mining (IOM3) on behalf of the UK Engineering Council, towards the achievement of Chartered Engineer status. Accreditation for 2025 entry is currently pending review.

Work placements/international opportunities

Students are encouraged to undertake a voluntary summer project in industry or a research laboratory. Recent locations for overseas summer projects have included Beijing, Zhejiang, Shanghai and Tokyo. A voluntary industrial tour to an overseas destination is organised in some Easter holidays. Recent destinations include Germany, Singapore, France, China and Sweden.

A typical week

During Years 1 and 2, your work will be divided between lectures (about ten a week),

tutorials/classes (about two a week) and practicals (two or three afternoons a week). Typically the work in preparation for each tutorial or class will be expected to take six to eight hours.

Year 3 starts with a two-week team design project, and about eight lectures and two classes/tutorials a week for the first two terms, while most of the third term is set aside for revision.

Year 4 consists of a supervised research project spanning three extended terms.

Lectures throughout Years 1-2 may be attended by the full year groups of around 40 undergraduate students. Normally Materials Year 3 Options Courses lectures will be attended by a smaller number of undergraduates plus a small number of research students.

Some Year 1 classes, which support the lectures, are attended by the full year group of around 40. Tutorials supporting the Year 1 and Year 2 Materials lecture courses are usually 2 to 4 students with a tutor. The Year 1 and 2 Mathematics lectures are supported by small group tutorial classes, typically up to 6 students per group. The Year 3 Options lectures are supported by small group tutorial classes, typically 8-12 students per group.

The majority of tutorials and lectures are delivered by staff who are Professors or Associate Professors, many of whom are world-leading experts with years of experience in teaching and research. Some teaching may also be delivered by post-doctoral researchers or postgraduate research students.

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

Course structure

YEAR 1	
COURSES • Physical foundations of materials • Structure and mechanical properties of materials • Transforming materials • Mathematics for materials science • Computing for materials science (MATLAB) • Crystallography classes • Practical course • Foreign language (optional)	**ASSESSMENT** First University examinations: four written papers; continual assessment components equivalent to a fifth paper

YEAR 2	
COURSES	

YEAR 2	
• Lifecycle, processing and engineering of materials • Electronic properties of materials • Mechanical properties of materials • Structure and thermodynamics of materials • Foreign language (optional) • Supplementary subject (optional) • Mathematics • Practical course • Entrepreneurship course • Industrial visits and talks • Communication skills	

YEAR 3	
COURSES • Materials options courses 1 • Materials options courses 2 • Team design project • Introduction to materials modelling module • Characterisation of materials or Atomistic modelling module • Industrial visits Examples of current options courses are available via the Materials Science website. At the start of Year 3 it is possible to transfer to a 3-year BA degree in Materials Science, graduating at the end of Year 3. Read essential further information about this on the Materials Science website. The BA is not accredited.	**ASSESSMENT** Final University examinations, Part I: six written papers; continual assessment components equivalent to a further two papers

YEAR 4	
COURSES Research project (full-time). Additional elements include Project management, Ethics and sustainability, Presentation skills and an optional foreign language course. (Students are required to achieve 50% minimum in the Part I assessment in order to progress to Part II.) Examples of project titles are available via the Materials Science website.	**ASSESSMENT** Final University examinations, Part II (equivalent to 4 papers): project dissertation submitted and assessed;

YEAR 4	
	oral examination of project dissertation

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. For further information, please see the University's Terms and Conditions.

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

	Per month		Total for 9 months	
Accommodation (including utilities)	£790	£955	£7,110	£8,595
Personal items	£200	£335	£1,800	£3,015
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 Materials Science

The fourth year is entirely devoted to research - a special feature of the Oxford MEng in Materials Science programme - consisting of a full-time individual research project under the supervision of a member staff.

This final year has three extended terms of 12 to 13 weeks and is 37 weeks in total so you will need to budget for higher living costs in the final year, as you will be required to be in Oxford for longer than the standard terms.

View the likely range of living costs for an additional month in Oxford.

During the project you will learn how to:

- break down a complex problem
- design an experiment or model
- manage your time and project
- maintain systematic records
- present your work orally
- write a substantial report.

These research skills are transferable to other career paths and are valued highly by employers. On occasion significant scientific publications result from these projects.