

## Course Information Sheet for entry in 2026-27: MSc in Nanotechnology for Medicine and Health Care



### Course facts

Mode of study	Part Time Only
Expected length	2 to 4 years

### About the course

The MSc in Nanotechnology for Medicine and Health Care is a part-time taught course exploring nanomedicine's role in diagnostics, drug delivery, imaging, and regenerative medicine, with strong links to clinical and commercial applications.

This advanced modular course is delivered by leading scientists and experts in this rapidly developing field and has been specifically designed for those who would value a part-time modular learning structure, for example those in full-time employment. It is offered by the University of Oxford Institute of Biomedical Engineering (Department of Engineering Science) and the Department for Continuing Education, in collaboration with Begbroke Science Park.

Nanomedicine is at the forefront of modern healthcare. Nanoparticles offer a new platform for drug delivery that can extend the 'patent life' of drugs, but also greatly increase the targeting and effectiveness of therapy. They can also enhance most of the medical imaging modalities, and in some cases offer a combined diagnostic and therapy, now called 'theranostics'.

Nanoparticle-based medicines are now becoming part of the mainstream approaches for diagnostics and therapy. A 2016 review identified 51 FDA-approved nanomedicines and 77 products undergoing clinical trials. By August 2018, 151 clinical trials using nanomaterials were completed or underway. The essential contribution of lipid nanoparticles (LNP) to the COVID-19 response provided approval and validation of a technology which is now being applied to a range of other infectious diseases and cancer, whilst recent approvals for viral-based gene therapies for haemophilia and diseases of the eye and the approval of the first CRISPR based therapy shows nano is now delivering on its promise to revolutionise medicine.

Nanotechnology is providing the basis for many of the new regenerative medicine approaches that are based on artificial scaffold structures and it offers solutions for many of the new generation of point-of-care biosensors and some of the advanced gene sequencing instrumentation. There are already early indications of improved healthcare outcomes, and the creation of new business and industry.

The University of Oxford Institute of Biomedical Engineering (IBME), an Institute within the Department for Engineering Science, is a world-class interdisciplinary centre for biomedical engineering research, where engineers and clinicians collaborate to address unmet needs in the prevention, early diagnosis and treatment of major diseases and conditions. The Institute's core research missions are to develop novel medical devices, technology and systems capable of delivering substantial healthcare benefit, and to translate new engineering technologies into clinical practice.

The MSc in Nanotechnology for Medicine and Health Care draws on the world-class research and teaching in nanotechnology and nanomedicine at the University of Oxford and aims to provide you with the necessary training to enable you to understand the principles of nanotechnology and its application in medical research and clinical practice.

The programme will appeal to professionals working in the commercial or healthcare sectors who develop or use nanotechnology in their work, including:

- biomedical engineers
- materials scientists
- biotech-entrepreneurs
- medical practitioners and dentists
- chemists and pharmacists
- electrical engineers
- project managers in related industries
- patent agents and patent lawyers
- legislators
- clinical research fellows, graduates and other researchers in a related area of science.

### Course structure

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

The course is taken part-time as a mixture of online and face-to-face modules, consisting of six modules and a research project and associated dissertation. The programme is normally completed in two to three years. Students are full members

of the University of Oxford and are matriculated as members of an Oxford college.

The course uses a blend of individual study together with group work during live online tutorials, conventional lectures and discussions and also requires the student to submit a dissertation reporting an original piece of nanomedicine-based research. The group sessions with tutors are particularly valuable because they offer highly focused learning and assessment opportunities.

The course comprises:

- three online modules;
- three five-day residential modules taught face-to-face in Oxford; and
- an original research project of approximately 18 weeks to be written up as a dissertation.

The three online modules can be taken from anywhere in the world with tutors who provide online support and electronically replicate the Oxford tutorial system, whereas the three face-to-face modules offer intense, focused lectures from Oxford academics from a range of disciplines with expertise in this field. Assessment throughout the modules ensures that students can monitor their progress.

## Attendance

This course is part-time. You will be required to attend three, five-day residentials in Oxford during the course.

It is recommended that students plan to spend at least 10-15 hours per week in private study in addition to time spent in classes or participating in online learning.

## 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.

The [Rewley House Continuing Education Library \(https://www.conted.ox.ac.uk/about/library-facilities\)](https://www.conted.ox.ac.uk/about/library-facilities), one of the Bodleian Libraries, is situated in Rewley House. The department aims to support the wide variety of subjects covered by departmental courses at many academic levels. The department also has a collection of around 73,000 books together with periodicals. PCs in the library give access to the internet and the full range of electronic resources subscribed to by the University of Oxford. The Jessop Reading Room adjoining the library is available for study.

Opening up possibilities for peer group interaction, students for the MSc in Nanotechnology for Medicine and Health Care are taught alongside those studying for other MSc and Post Graduate Diploma courses in the health sciences, as well as healthcare professionals undertaking the modules for continuing professional development.

The department provides various [IT facilities \(https://www.conted.ox.ac.uk/about/online-support\)](https://www.conted.ox.ac.uk/about/online-support), including the Student Computing Facility which provides individual PCs for your use.

## Supervision

The allocation of graduate supervision for this course is the responsibility of the Department of Engineering Science and/or the Department for Continuing Education, and this role will usually be performed by the Course Director.

It is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. A supervisor may be found outside the Department of Engineering Science and/or the Department for Continuing Education.

## Assessment

To qualify for the award of an MSc, you will need to:

- Complete and pass six taught modules, submitting one or more written assignments with each module. All modules are compulsory. Modules 1-3 are taught online, Modules 4-6 in person in Oxford. You will also be expected to attend a Residential Weekend in Oxford at the end of Module 3.

- Feedback will be provided for each submission when marks are released. Assessment is summative and weighted marks for each assignment will count towards your overall result for the MSc. Full details of the assessment structure are included in the Course Handbook provided to on-course students.
- You will need to submit a research dissertation of up to 15,000 words. You will be expected to define your own dissertation topic in consultation with your allocated supervisor and the Course Director. You must submit your proposed title no later than the ninth term of study. You will have three terms to complete and submit the dissertation. Students normally begin work on their dissertation project in October with submissions due the following September.

## Course components

### Compulsory study

The course comprises:

- three online modules giving a thorough introduction to the fundamental science of nanotechnology and the behaviour and characterisation of nanoscale materials;
- three five-day residential modules taught face-to-face in Oxford explaining the scientific, regulatory, clinical and commercial aspects of the application of nanotechnology to medicine and healthcare; and
- an original research project of approximately 18 weeks to be written up as a dissertation.

Programme modules:

- The Wider Context of Nanotechnology (online)
- The Fundamental Science of Nanotechnology (online)
- Fundamental Characterisation for Nanotechnology (online)
- Introduction to Bionanotechnology (in Oxford)
- Nanomedicine – Science and Applications (in Oxford)
- Clinical Translation and Commercialisation of Nanomedicine (in Oxford)

## 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](http://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses) (<http://www.ox.ac.uk/admissions/graduate/courses/changes-to-courses>) and the [provisions of the student contract](http://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract) (<http://www.ox.ac.uk/admissions/graduate/after-you-apply/your-offer-and-contract>) regarding changes to courses.

## Costs

### Modular course fees

The fees for this course are charged on a modular basis. You will pay an annual course fee and an additional fee for each module studied. A minimum of two annual course fees are payable for this course. If this course includes a dissertation, three module fees will be charged for the dissertation.

The annual course fee differs depending on whether you enter the MSc directly, or whether you first complete the [PGCert in Nanotechnology](https://www.ox.ac.uk/admissions/graduate/courses/pgcert-nanotechnology) (<https://www.ox.ac.uk/admissions/graduate/courses/pgcert-nanotechnology>), as shown below. Please refer to the course page on the department's website for further information about the fee structure (see under *Further Information and Enquiries*).

#### Fees for the 2026-27 academic year (direct entry to MSc)

Fee status	Annual Course Fee	Fee per module	Total estimated fees
Home	£5,590	£2,905	Please see the department's website for <a href="https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care">further details</a> ( <a href="https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care">https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care</a> ).
Overseas	£5,590	£2,905	

#### Fees for the 2026-27 academic year (entry following PGCert in Nanotechnology)

Fee status	Annual Course Fee	Fee per module	Total estimated fees
Home	£7,365	£2,905	Please see the department's website for <a href="https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care">further details</a> ( <a href="https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care">https://www.conted.ox.ac.uk/about/msc-in-nanotechnology-for-medicine-and-health-care</a> ).
Overseas	£7,365	£2,905	

### 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](https://www.ox.ac.uk/students/new/contract) (<https://www.ox.ac.uk/students/new/contract>).

Our [fees and other charges](https://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](https://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](https://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](https://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](https://www.ox.ac.uk/students/new/contract) (<https://www.ox.ac.uk/students/new/contract>).

### Additional costs

Please note that this course requires that you attend in Oxford for teaching sessions, and you may incur additional travel and accommodation expenses for this. Accommodation costs in Oxford can start at around £98 per night in a department/college or around £120 in a hotel (single rate). Students should also factor in costs for meals during their stay. In addition, as part of your course requirements, you will need to choose a dissertation topic. This element of the course is mandatory and forms part of the assessment for the course. Depending on your choice of topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, equipment. You will need to meet these additional costs yourself. There are no other compulsory elements of this course that entail additional costs beyond fees and living costs.

## 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 part-time study

Your living costs may vary depending on your personal circumstances but you will still need to cover your cost of living on a full-time basis for the duration of your course, even if you will not be based in Oxford throughout your studies. While the range of likely living costs for a single, full-time student living in Oxford in the 2026-27 academic year is between £1,405 and £2,105 per month, living costs outside Oxford may be different.

Part-time students who are not based in Oxford will need to calculate travel and accommodation costs carefully. Depending on your circumstances and study plans, this may include the cost of a visitor visa to attend for short blocks of time (<https://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs>), (if visitor visa eligibility criteria (<https://www.ox.ac.uk/students/visa/before/visitors>), 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
<b>Food</b>	£315	£545
<b>Accommodation</b>	£825	£990
<b>Personal items</b>	£160	£310
<b>Social activities</b>	£50	£130
<b>Study costs</b>	£35	£90
<b>Other</b>	£20	£40
<b>Total</b>	£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 (<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)).