Course Information Sheet for entry in 2026-27: Engineering Biology (EPSRC and BBSRC CDT)

Course facts

Mode of study	Full Time Only
Expected length	4 years

About the course

The Engineering Biology CDT is a research-based course combining synthetic biology, engineering, and computing to develop real-world biotechnological solutions, with training in innovation, ethics, and interdisciplinary collaboration.

After training in the fundamentals of mathematics, biology, engineering and computing and team-based problem solving projects, you will complete two short research projects, one of which will develop into your substantive DPhil project. Throughout the course, you will undertake bespoke training in translational aspects. This course is run jointly with the University of Bristol.

Throughout the four years of the course, there will be bespoke innovation and commercialisation training, responsible innovation, EDI and bioethics training, and career development programmes.

During the course, you will also have access to the extensive range of seminars and symposia in both the Department of Engineering Science and other departments of the University. During term-time there are regular departmental seminars which all graduate students are expected to attend, along with the annual Department of Engineering Science specific Lubbock Lecture and BioEnginuity events.

Students also present at regular progress seminars, which bring together groups in the department working in related areas. Your research group will be able to advise you as to which seminar series you should attend. All seminars are advertised on the web portal Oxford Talks.

There will be multiple opportunities for you to present your work, within the course and to a wider university audience. You will also have opportunities to present your work at national and international conferences. Graduate students in the department run a lively Graduate Students' Association and meet regularly for social, science and networking events.

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 first year of the course will be divided into three segments. The first of these will begin with a series of inductions as part of the department's welcome weeks in Oxford. This will include meeting tutors, potential supervisors, the management team, and students from other cohorts.

You will then receive around four weeks of foundation training, based on your academic background. This will be followed by around six weeks of specialised training in engineering biology topics, techniques and challenges. This training will take place at the University of Bristol for all students.

At the end of this first segment, you will typically attend a retreat for innovation in engineering biology group projects. This may be attended by students from earlier cohorts, Synthetic Biology graduates, industrial partners, and supervisors, who will provide input and case studies.

During the first four weeks of your second segment, you will work on your innovation in engineering biology group projects and write a report in the style of a scientific publication and make (where possible) data and code available to students of future cohorts to offer the opportunity to build on the research performed (eg via GitHub).

The first of two individual short research projects will follow the group projects. Segment three will comprise the second of these research projects and a summer school. One of these two short research projects will typically develop into the substantive DPhil project that you will work on throughout years two to four.

To learn more about the research topics you'll have the opportunity to explore, please refer to the *Research areas* section on this page.

Short projects and substantive DPhil studies in collaboration with the CDT's industry partners are also encouraged and shortlisted applicants will have the opportunity to discuss these at interview.

You will also take advanced units in AI and robotics for engineering biology and in current engineering biology applications for industry alongside the rest of the course cohort.

Attendance

The course is full-time and requires attendance in Oxford. Full-time students are subject to the University's Residence requirements. (//www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements)

Provision exists for students on some courses to undertake their research in a ‘well-founded laboratory’ outside of the University. This may require travel to and attendance at a site that is not located in Oxford. Where known, existing collaborations will be outlined on this page. Please read the course information carefully, including the additional information about course fees and costs.

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) at Oxford.

You will have use of University Libraries such as the Radcliffe Science Library and the Cairns Library. Library access includes full online access to all relevant scientific journals.

There are numerous seminar and meeting rooms available within the Department of Engineering Science, fully equipped with audio-visual equipment. You will be provided with bench space in your supervisor's laboratory and a suitable desk.

There are central facilities for nanoscale characterisation, flow cytometry, microscopy and genome engineering. Members of the department also have access to a wide range of shared facilities, including proteomics, imaging, structural biology, genomics, 3D printing and bioprinting, and drug-discovery. Training and support is available for use of all these resources.

Supervision

The allocation of graduate supervision for this course is the responsibility of the Department of Engineering Science and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. A supervisor is often found outside the Department of Engineering Science.

You will have the opportunity to receive individual mentorship by the Course Director and other members of the course staff on a termly basis during the training year. During your DPhil studies you will meet according to the stipulations of your host department.

Assessment

During the training year there will be formative and summative assessment (eg essays, presentations).

You will also complete two short research projects during this first year, one of which you will develop into your substantive DPhil. Projects will be assessed via written reports and oral presentations.

All students will be initially admitted to the status of Probationer Research Student (PRS). Within a maximum of six terms as a PRS student you will be expected to apply for transfer of status from Probationer Research Student to DPhil status.

If you cannot complete transfer to DPhil status in Oxford, exit awards (from the University of Bristol, regardless of home institution) will be made depending on the credit points (CPs) gained (MRes with 180 CPs, or different for lower CPs, following the University of Bristol Credit Framework).

A successful transfer of status from PRS to DPhil status will require submission of work and interview according to the local rules of your host department. Students who are successful at transfer will subsequently be expected to apply for and gain confirmation of DPhil status within 10 terms of admission, to show that your work continues to be on track.

You will be expected to submit a substantial, original thesis after four years from the date of admission. To be successfully awarded a DPhil you will need to defend your thesis orally (viva voce) in front of two appointed examiners.

Course components

Compulsory study

The first-year programme is split into three sections.

During the first section, you will receive foundation training at both Oxford and Bristol Universities. This training starts with four weeks in Oxford. The student cohort will be split at the beginning based on background:

- students with a background in life sciences will receive foundation training in engineering and computational principles; or
- students with a background in engineering/physical sciences backgrounds, foundation training in biology will be provided.

You will then receive six weeks of specialised training in engineering biology topics, techniques and challenges, which takes place at the University of Bristol. It will typically include interdisciplinary training in engineering biology design across scales (from biomolecules to cells), as well as advanced engineering biology topics and techniques such as:

- Modelling and control theory
- Artificial intelligence and machine learning
- Gene circuit design
- Protein design and engineering
- Tissue engineering.

In the second section, you will work on innovation in engineering biology with a group project. You will write a report in the style of a scientific publication and make (where possible) data and code available to students of future cohorts to offer the opportunity to build on the research performed (e.g. via GitHub).

The third and last section of the first taught year, you will undertake two individual, short research projects.

One of these two short research projects will typically develop into the substantive DPhil project that you will work on throughout years two to four. Short projects and substantive DPhil studies in collaboration with our industry partners are also encouraged.

Retreat and summer school

During the first section of the foundation training, you will attend a retreat, focusing on the group innovation in engineering biology project. You will also attend a Summer School in June/July which will include talks from engineering biology leaders, pitches from the innovation in engineering biology projects, and outreach projects.

Research areas

You'll have the opportunity to undertake research within the specialised themes of this course, which include:

- Robust methods for bioengineering
- Rational biomolecular & biosystems design
- Evolution-guided biodesign
- Digital cells & AI.

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 (//www.ox.ac.uk/admissions/graduate/courses/changes-to-courses) and the provisions of the student contract (//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	£10,470
Overseas	£34,700

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) .

Graduate students who have reached the end of their standard period of fee liability will be required to pay a University continuation charge and/or a college continuation charge.

The University continuation charge, per term for entry in 2026-27 is £656, please be aware that this will increase annually. For part-time students, the termly charge will be half of the termly rate payable by full-time students.

If a college continuation charge applies (not applicable for non-matriculated courses) it will be between £150 and £500, as explained in our information about continuation charges (//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/continuation-charges) . Please contact your college for more details, including information about whether your college's continuation charge is applied at a different rate for part-time study.

Where can I find more information about fees?

Our fees and other charges (//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) ;
- how your fee status is determined (//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/fee-status) ;
- changes to fees and other charges (//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/changes-to-fees-and-charges) ; and
- continuation charges (//www.ox.ac.uk/admissions/graduate/fees-and-funding/fees-and-other-charges/continuation-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) .

Additional costs

There are no compulsory elements of this course that entail additional costs beyond fees (or, after fee liability ends, continuation charges) and living costs. However, please note that, depending on your choice of research 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) 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) that you plan to bring with you to Oxford (if dependant visa eligibility criteria (//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) page of our website.

Accommodation will be arranged for Oxford students during their time in Bristol. Please consult the University of Bristol website for further information about living costs (https://www.bristol.ac.uk/students/support/finances/advice/living-expenses/) while studying at that institution.

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).