# Course Information Sheet for entry in 2026-27:
# Robotics and AI for Net Zero (EPSRC CDT)

## Course facts

| Mode of study | Full Time Only |
|---|---|
| Expected length | 4 years |

## About the course

The EPSRC CDT in Robotics and AI for Net Zero (RAINZ) is run by the Universities of Manchester, Glasgow and Oxford. It trains the next generation of engineers in the robotics and AI (RAI) technologies needed to support the UK's net zero agenda.

Students on the RAINZ CDT will be trained in both research and commercialisation of robotics and AI technologies to support the lifecycle asset management of critical net zero energy generation infrastructure.

RAINZ is structured around an innovative cohort training and research model to ensure graduates are not only subject matter experts, but have highly valuable skills in teamworking, multi-disciplinary systems integration, industrial engagement, and commercialisation. Each cohort will be recruited to conduct research directed towards an industry co-created, cross-sector cohort challenge which will be different for each new cohort.

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

Initially students will focus on the use of Robotics and AI (RAI) in operations and maintenance of Net Zero assets (O&M), through inspection, maintenance, and repair activities; and in the decommissioning of infrastructure in renewables (wind, solar, geothermal, tidal, hydrogen) and nuclear (fission and fusion).

The research in the CDT will also support the decarbonization of these assets across their lifecycle phases in a diverse range of sectors. The scope of research will expand through the lifetime of the CDT to include the other lifecycle phases: design, logistics, construction, and recycling.

Within Oxford, research will focus on RAI topics aligned with the research themes of the principle investigators within the Oxford Robotics Institute.

In Year 1, students will be enrolled onto an MSc at The University of Manchester related to their PhD research. Within this year students must achieve a GPA of at least 65% in the exams to be considered for progression to the DPhil. Students will not be awarded an MSc, as the summer period will be spent undertaking a CDT summer school rather than an MSc dissertation.

Once an Oxford student has moved to the DPhil portion of the CDT, they will be based in the Oxford Robotics Institute within the group or groups of their local supervision team.

### Attendance

The first year of this course is based at the University of Manchester. Following this, RAINZ students studying at Oxford will move to the University of Oxford, and will be subject to the University's residence requirements (//www.ox.ac.uk/admissions/graduate/after-you-apply/accommodation/residence-requirements) for full-time students.

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 underline guidance on what technology to bring with you as a new student (https://www.it.ox.ac.uk/what-to-bring) at Oxford.

There are strong links with researchers in other departments in the mathematical and physical sciences and, ever increasingly, with researchers and practitioners in medical science departments and University hospitals.

The research clusters are well-supported by experienced teams of technical, computing, and administrative support staff. You will have access to well-equipped research areas and workshops.

## Supervision

For RAINZ students based at the University of Oxford, the allocation of graduate supervision 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.

Under exceptional circumstances a supervisor may be found outside the Department of Engineering Science.

As well as supervision, the student will be a part of a RAINZ cohort of students that will take part in meetings and training activities throughout their period of study. Students based in the Oxford Robotics Institute will also take part in group and Institute meetings.

## Assessment

In the first year at the University of Manchester, students will be continually assessed as part of their MSc course. Students must achieve a GPA of at least 65% in the exams to be considered for progression to the DPhil. Students will not be awarded an MSc, as the summer period will be spent undertaking a CDT summer school rather than an MSc dissertation.

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.

A successful transfer of status from PRS to DPhil status will require a satisfactory research proposal and evidence of research skills (usually in the form of a draft paper). Students who are successful at transfer will also be expected to apply for and gain confirmation of DPhil status within ten terms of admission, to show that your work continues to be on track.

Both milestones normally involve an interview with two assessors (other than your supervisor) and therefore provide important experience for the final oral examination.

The final thesis is normally submitted for examination during the fourth year and is followed by the viva examination. The final award for Oxford-based students will be a DPhil awarded by the University of Oxford. To be successfully awarded a DPhil you will need to defend your thesis orally (viva voce) in front of two appointed examiners.

# Research areas

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

Robotics and AI (RAI) to provide step-changes at each stage of the lifecycle of Net Zero energy generation assets, such as wind turbines, solar arrays, or nuclear reactors. This will be done through the creation of new innovative technologies, workflows, etc which will increase safety, reduce costs, decarbonize operations and enhance the overall viability of such systems.

## Further information

Information on underline academic and research staff (https://ori.ox.ac.uk/people-list/) and underline departmental research (https://ori.ox.ac.uk/projects/cdt-rainz/) can be found on the department's website.

# 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 underline changes to courses (//www.ox.ac.uk/admissions/graduate/courses/changes-to-courses) and the underline 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.

The fee rates at the University of Manchester (https://www.rainz-cdt.ac.uk/study/programme/) for each of the first year MSc courses are published in the links under 'MSc options' on the RAINZ CDT website.

For an indication of costs at the University of Oxford, the table below shows the annual course fees for the 2026-27 academic year for the RAINZ CDT at Oxford.

### 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.

Please note that the estimated living costs above are for study at the University of Oxford. You are advised to consult the guidance about living costs at the University of Manchester (https://www.manchester.ac.uk/study/student-life/experience/cost-of-living/) for the first year of the course.

# 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).