

Course Information Sheet for entry in 2025-26: Statistics and Machine Learning (EPSRC CDT)



Course facts

Mode of study	Full Time	Part Time
Expected length	4 years	8 years

About the course

The Statistics and Machine Learning (StatML) Centre for Doctoral Training (CDT) is a four-year DPhil research course (or eight years if studying part-time). It will train the next generation of researchers in statistics and machine learning, who will develop widely-applicable novel methodology and theory and create application-specific methods, leading to breakthroughs in real-world problems in government, medicine, industry and science.

This is the Oxford component of the StatML CDT, co-hosted by Imperial College London and the University of Oxford. The course will provide you with training in both cutting-edge research methodologies and the development of business and transferable skills – essential elements required by employers in industry and business.

You will undertake a significant, challenging and original research project, leading to the award of a DPhil. Given the breadth and depth of the research teams at Imperial College and the University of Oxford, the proposed projects will range from theoretical to computational and applied aspects of statistics and machine learning, with a large number of projects involving strong methodological/theoretical developments together with challenging real-world problems. A significant number of projects will be co-supervised with industry.

You will pursue two mini-projects during your first year (specific timings may vary for part-time students), with the expectation that one of them will lead to your main research project. At the admissions stage you will choose a mini-project. These mini-projects are proposed by the department's supervisory pool and industrial partners. You will be based at the home institution of your main supervisor of the first mini-project.

If your studentship is funded or co-funded by an external partner, the second mini-project will be with the same external partner but will explore a different question.

Alongside your research projects you will engage with taught courses each lasting for two weeks. Core topics will be taught at the beginning of your first year (specific timings may vary for part-time students) and are:

- Modern Statistical Theory
- Statistical Machine Learning;
- Causality; and
- Bayesian methods and computation.

You will then begin your main DPhil project at the beginning of the third term (at the beginning of the fourth term for part-time students), which can be based on one of the two mini-projects. Where appropriate for the research, your project will be run jointly with the CDT's leading industrial partners, and you will have the chance to undertake a placement in data-intensive statistics with some of the strongest statistics groups in the USA, Europe and Asia.

If you are studying full-time, starting in the second year, you will teach approximately twelve contact hours per year in undergraduate and graduate courses in your host department. If you are studying part-time, teaching will begin in the third year and you will teach approximately six hours per year. This is mentored teaching, beginning with simple marking, to reach a point where individual students are leading whole classes of ten or twelve undergraduate students. Students will have the support of a mentor and get written feedback at the end of each block of teaching.

You will also be required to take a number of optional courses throughout the four years of the course, which could be made up of choices from the following list:

- Bayesian nonparametrics;
- high-dimensional statistics;
- advanced optimisation;
- networks;
- reinforcement learning;
- large language models;
- conformal inference, variational Bayes and advance Bayesian computations, dynamical and graphical modelling of multivariate time series, modelling events; *and*
- deep learning.

Optional modules last two weeks and are delivered in a similar format to the core modules.

Many events bring StatML students and staff together across different peer groups and research groups, ranging from full cohort days and group research skills sessions to summer schools. These events support research and involve staff and students from both Oxford and Imperial coming together at both locations.

The Department of Statistics runs a seminar series in statistics and probability, and a graduate lecture series involving snapshots of the research interests of the department. Several journal-clubs run each term, reading and discussing new research papers as they emerge. These events bring research students together with academic and other research staff in the department to hear about on-going research, and provide an opportunity for networking and socialising.

Attendance

The course can be studied full-time or part-time with both modes requiring attendance in Oxford. Full-time students are subject to the University's Residence requirements. Part-time students are required to attend course-related activities in Oxford for a minimum of 30 days each year.

The full-time course is usually studied over three to four years. The part-time course is usually studied over six to eight years.

The course will involve attending modules and other cohort activities. You may be required to attend some activities in London.

There will be no flexibility in the dates of modules or cohort events, though it is possible to spread your attendance at modules over the four year course (with agreement of your supervisor and the course directors). Attendance will be required during term-time (on a pro-rata basis) for cohort activities. These often take place on Mondays and Thursdays. Attendance will occasionally be required outside of term-time for cohort activities.

Cohort-building is a core element of StatML. As a result, the course requires you to attend the various academic training and cohort-based/cross-cohort activities in-person. You are strongly encouraged to attend all training and engage with all cross-cohort activities organised by Oxford and Imperial over the course of your DPhil. If needed, the course will support any student who needs to be accommodated.

You will have the opportunity to tailor your part-time study and skills training in liaison with your supervisor and course directors and agree your pattern of attendance.

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 world-class 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.

The department has spaces for study and collaborative learning, including the library and large interaction and social area on the ground floor, as well as an open research zone on the second floor.

You will be provided with a computer and desk space in a shared office. You will have access to the department of Statistics computing facilities and support, the department's library, the Radcliffe Science Library and other University libraries, centrally-provided electronic resources and other facilities appropriate to your research topic. The provision of other resources specific to your DPhil project should be agreed with your supervisor as a part of the planning stages of the agreed project.

Facilities for refreshment are provided in the department. There are also opportunities for sporting interaction such as football and cricket.

Supervision

The allocation of graduate supervision for this course is the responsibility of the Department of Statistics (Oxford) and/or the Department of Mathematics (Imperial). 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 these departments.

You are matched to your supervisor for the first mini-project at the start of the course. Within the first year of the course, the student will have the opportunity to work with an alternative supervisor for a second mini-project. It is normal for one of these mini-projects to lead to the full DPhil project with the same supervisory team as was in place for the mini-project chosen.

Typically, as a research student, you should expect to have meetings with your supervisor or a member of the supervisory team with a frequency of at least once every two weeks averaged across the year. The regularity of these meetings may be subject to variations according to the time of the year, and the stage that you are at in your research programme.

Assessment

Each mini-project will be assessed on the basis of a report written by the student, by researchers from Imperial and Oxford.

Modules are assessed by a presentation in small groups on some material studied during the two-week module (known as micro-projects within the programme).

All students will be initially admitted to the status of Probationer Research Student (PRS). Within a maximum of six terms as a full-time PRS student or twelve terms as a part-time PRS student, you will be expected to apply for transfer of status from Probationer Research Student to DPhil status. This application is normally made by the fourth term for full-time students and by the eighth term for part-time students.

A successful transfer of status from PRS to DPhil status will require the submission of a thesis outline. Students who are successful at transfer will also be expected to apply for and gain confirmation of DPhil status to show that your work continues to be on track. This will need to be done within nine terms of admission for full-time students and eighteen terms of admission for part-time students.

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

Full-time students will be expected to submit a thesis at four years from the date of admission. If you are studying part-time, you be required to submit your thesis after six or, at most, eight years from the date of admission. To be successfully awarded a DPhil in Statistics you will need to defend your thesis orally (viva voce) in front of two appointed examiners.

The final thesis is normally submitted for examination during the fourth year (or eighth year if studying part-time) and is followed by the viva examination. The final award for Oxford-based students will be a DPhil awarded by the University of Oxford.

Changes to this course

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 you commence your course. These might include significant changes made necessary by any pandemic, epidemic or local health emergency. For further information, please see the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>) and our page on changes to courses (<http://www.graduate.ox.ac.uk/coursechanges>).

Costs

Annual fees for entry in 2025-26

Full-time study

Fee status	Annual Course fees
Home	£10,070
Overseas	£33,370

Part-time study

Fee status	Annual Course fees
Home	£5,035
Overseas	£16,685

Information about 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, please be aware that fees will usually increase annually. Information about how much fees and other costs may increase is set out in the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>).

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

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

The University continuation charge, per term for entry in 2025-26 is £672, 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 is likely to be in the region of £100 to £600. 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.

Additional cost information

Full-time study

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 and/or college to help you cover some of these expenses.

Part-time study

Please note that you are required to attend in Oxford for a minimum of 30 days each year, and you may incur additional travel and accommodation expenses for this. Also, depending on your choice of research topic and the research required to complete it, you may incur further 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 and/or college 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.

If you are studying part-time your living costs may vary depending on your personal circumstances but you must still ensure that you will have sufficient funding to meet these costs for the duration of your course.

The likely living costs for the 2025-26 academic year are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

Likely living costs for one month

	Lower range	Upper range
Food	£330	£515
Accommodation	£790	£955
Personal items	£200	£335
Social activities	£45	£100
Study costs	£40	£90
Other	£20	£40
Total	£1,425	£2,035

Likely living costs for nine months

	Lower range	Upper range
Food	£2,970	£4,635
Accommodation	£7,110	£8,595
Personal items	£1,800	£3,015
Social activities	£405	£900
Study costs	£360	£810
Other	£180	£360
Total	£12,825	£18,315

Likely living costs for twelve months

	Lower range	Upper range
Food	£3,960	£6,180
Accommodation	£9,480	£11,460
Personal items	£2,400	£4,020
Social activities	£540	£1,200
Study costs	£480	£1,080
Other	£240	£480
Total	£17,100	£24,420

When planning your finances for any future years of study at Oxford beyond the 2025-26 academic year, it is suggested that you allow for potential increases in living expenses of 4% each year – although this rate may vary depending on the national economic situation.

More information about how these figures have been calculated is available at www.graduate.ox.ac.uk/livingcosts.

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) or via the online form (<http://www.graduate.ox.ac.uk/ask/form>).