

Course Information Sheet for entry in 2021-22: Sustainable Approaches to Biomedical Science: Responsible and Reproducible Research (EPSRC Centre for Doctoral Training)



About the course

The EPSRC Centre for Doctoral Training in Sustainable Approaches to Biomedical Science: Responsible and Reproducible Research (SABS: R³) is an innovative open collaboration between the University of Oxford and 22 partner industrial organisations.

SABS: R³ is predicated on the increasing reliance of biomedical research on computational approaches, and hence on well-engineered research software. The programme aims to train first-rate biomedical scientists equipped with the skills needed to transform their research through the creation of innovative, reusable computational tools and solutions for cutting-edge biomedical research problems.

This four-year programme of research and training has strong industrial links, with each student having both academic and industrial supervision.

The programme enables students from a range of quantitative scientific backgrounds to focus on biomedical research problems, including the design and testing of new chemical and biological entities, the modelling of biological and physiological systems, the robust analysis of large complex datasets and the development of novel computational methods for medical and biological imaging. This cross-disciplinary work introduces students to cutting-edge software engineering, machine learning, cheminformatics, computational simulation, bioinformatics, data mining, statistical analysis, physical and structural study of biomolecules, mathematical modelling, and medical and biological imaging. Underpinning the entire programme will be an appreciation of the vital importance of taking a responsible and reproducible approach to computational biomedical research.

The CDT's industrial partners are currently AC Immune, AstraZeneca, BenevolentAI, the Cambridge Crystallographic Data Centre, Diamond Light Source, Elsevier, e-therapeutics, Exscientia, GE Healthcare, Hoffmann La Roche, Immunocore, Lhasa, LifeArc, Lurtis, MedImmune, Microsoft Research, Moffitt Cancer Center, Novo Nordisk, Oxford Drug Design (formerly InhibiOx), Perspectum Diagnostics, SimOmics, UCB and Zegami.

A major advantage of the programme is that you are not required to choose the substantive DPhil project until after the initial taught training phase, allowing a more informed choice of research project to be made.

In addition to learning about biomedical science, the first six months of the course are devoted to acquiring advanced software development and theoretical and technical skills that form the backbone of interdisciplinary research in this area. This training draws from the engineering, mathematical, physical, chemical and biological sciences through a combination of intensive lecture courses, project work and hands-on software development. Each taught module lasts for either one, two or three weeks and is assessed using a method appropriate to the course: for example, open-source software development, presentations, group assignments or written work. This will be complemented with relevant research and communication skills training throughout the four years of the programme. A key element of the programme is the group-development of an open-source software solution to a current research problem put forward by our industrial collaborators.

After completion of the taught training phase, you will undertake two exploratory research projects of thirteen weeks' duration each, similar in scope to a master's-level project, followed by the three-year DPhil project. You will be based within the research group of your principal supervisor for these, which may be in the University or with an industrial partner.

Supervision

The allocation of graduate supervision is the responsibility of the Centre for Doctoral Training and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. In the first year of the course, students will be supervised by the programme directors, who will also support students in choosing their doctoral research project. Supervision arrangements for years two to four will therefore be confirmed at the end of the first year when the doctoral project is chosen.

Where possible your academic supervisor will not change for the duration of the doctoral research phase of your course (years two to four), however it may be necessary to assign a new academic supervisor for reasons which might include sabbatical leave, maternity leave or change in employment.

Assessment

During the first year students are assessed on each of the taught modules undertaken in the first two terms as well as on each of the two short rotation projects undertaken. Satisfactory achievement will be required for progression to the research stage.

Assessment during the following three years of the programme will follow the regulations of the department in which you are hosted.

Changes to courses

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. These may include significant changes made necessary by a pandemic (including Covid-19), 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>).

Expected length of course

	Full Time Only
Expected length	4 years

Costs

Annual fees for entry in 2021-22

Fee status	Annual Course fees
Home (UK, Republic of Ireland, Channel Islands & Isle of Man)	£8,290
Overseas (including EU)	£27,460

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.

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 2021-22 is £528, 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 £400 per term. Please contact your college for more details.

Additional cost information

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.

Living costs

In addition to your course fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for 2021-22 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 2021-22

	Likely living costs for 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
Food	£280	£400	£2,520	£3,600	£3,360	£4,800
Accommodation	£655	£790	£5,895	£7,110	£7,860	£9,480
Personal items	£130	£250	£1,170	£2,250	£1,560	£3,000
Social activities	£45	£115	£405	£1,035	£540	£1,380
Study costs	£45	£100	£405	£900	£540	£1,200
Other	£20	£55	£180	£495	£240	£660
Total	£1,175	£1,710	£10,575	£15,390	£14,100	£20,520

When planning your finances for any future years of study at Oxford beyond 2021-22, you should allow for an estimated increase in living expenses of 3% each year.

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

Document accessibility

If you require an accessible version of the 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>).