Imperial College London

DEPARTMENT OF STATISTICS — UNIVERSITY OF OXFORD

**EPSRC Centre for Doctoral Training in
Modern Statistics and Statistical Machine Learning
at Imperial and Oxford**

**Course Handbook
2022 Intake**

Engineering and
Physical Sciences
Research Council
UKRI

Contents

1.   Introduction

Welcome to the EPSRC Centre for Doctoral Training (CDT) in Modern Statistics and Statistical Machine Learning at Imperial and Oxford (StatML)!

StatML is a CDT based at Imperial and Oxford. It is mainly funded by the Engineering and Physical Sciences Research Council (EPSRC), with significant contributions from both Imperial and Oxford, as well as from a range of industrial partners.

You will be trained to be part of the next generation of leaders in statistics and statistical machine learning. We aim to enable you to develop widely applicable novel methodology and theory, as well as create application-specific methods. We are confident that this will lead to breakthroughs in real-world problems in government, medicine, industry, and science.

Make use of the exciting opportunities that this collaboration between Imperial and Oxford offers. Some of the training will be giving you mathematical / statistical / machine learning / computational skills, other parts help you make use of these techniques, for example the networking opportunities and the communications training. Some of this will not be directly relevant to your specific research project, but it will most like be very useful in your future career (particularly the networks you will be part of).

Do fully engage with the CDT's activities, your supervisors and, particularly, with other students on the CDT. This will ensure that you will have a stimulating and hopefully a very enjoyable number of years in London and Oxford.

We wish you all the best for your studies!

On behalf of the CDT Management Team

Professor Axel Gandy (CDT Director)

General

This handbook is designed to help you understand the course structure and how the modules are laid out; what is required from you regarding your contribution to this course; who the key contacts are and who you can go to if you need support. Please be aware that details may be subject to change.

This handbook applies to students starting the StatML programme in October 2022. The information in this handbook may be different for students starting in other years. Every effort is made to ensure that information offered from this handbook is accurate at the time of going online. Notice of misprints or errors of any kind, and suggestions for improvements in this booklet should be addressed to your respective Centre Manager.

The University of Oxford Examination Regulations are available at: https://examregs.admin.ox.ac.uk/ If there is a conflict between the information in this handbook and the Examination Regulations then you should follow the Examinations Regulations. Imperial College London's academic and examination regulations for the award of research degrees are available at:http://www.imperial.ac.uk/about/governance/academic-governance/regulations/ If you have any general concerns, please contact your respective Centre Manager.

2.   Programme Background

The primary objective of the EPSRC Centre for Doctoral Training in Modern Statistics and Statistical Machine Learning at Imperial and Oxford (StatML) is to train a new generation of doctoral students in modern statistics and statistical machine learning. The core of the research training will be on the theory and methods underpinning modern statistics and statistical machine learning approaches to complex datasets.

The training is designed to achieve the following objectives:

- To train students as world class researchers in statistics and statistical machine learning, and to enhance their creativity and their ability to develop innovative statistical theory and methods.
- To equip students with a solid and modern foundation of theoretical and methodological statistics.
- To expose students to a breadth of applications by giving them challenging, interesting, and important applied problems, from industry, the public sector, or scientific domains.
- To train students with communication, team-working, and other skills necessary to communicate their expert knowledge with diverse stakeholders in business, science, healthcare, and government.
- To develop the students' leadership and entrepreneurial skills.
- To embed students in a balanced and diverse cohort of students.
- To empower students to create national and international networks of contacts and collaborators.

The CDT will train the next generation of leaders in statistics and statistical machine learning, who will be able to develop widely applicable novel methodology and theory, as well as create application-specific methods, leading to breakthroughs in real-world problems in government, medicine, industry and science. The research will focus on the development of applicable modern statistical theory and methods as well as on the underpinnings of statistical machine learning. The research will be strongly linked to applications.

Large volumes of complicated data are now routinely collected in all sectors of society, encompassing electronic health records, massive scientific datasets, governmental data, and data collected through the advent of the digital economy. The underpinning techniques for exploiting these data come from statistics and machine learning. Scientifically valid, interpretable and reproducible results are needed to understand scientific phenomena and to justify decisions, particularly those affecting individuals. Bespoke, model-based statistical methods are needed, that may need to be blended with statistical machine learning approaches to deal with large data. Individuals that can fulfil these more sophisticated demands are doctoral level graduates in statistics who are well versed in the foundations of machine learning.

The Centre brings together Imperial and Oxford, two top statistics groups, as equal partners, offering an exceptional training environment and the direct involvement of absolute research leaders in their fields. Teaching cuts across years and thus creates strong cohort cohesion not just within a year group but also between year groups. We will link theoretical advances to application areas through partner interactions as well as through a placement of students with users of statistics.

3. Course Overview

This is a four year doctoral degree (PhD or DPhil) in Modern Statistics and Statistical Machine Learning. Over the first year, students participate in four taught modules, to include 3 core modules and 1 optional module. Students will undertake a further 5 optional modules spread out over years 2-4 years of the programme. Teaching is co-led by faculty from Imperial and Oxford.

The modules have a regular structure, each normally lasting two weeks. Typically, Mondays and Thursdays are given over to lectures and exercises, along with work on micro-projects in small groups which will involve reading some original literature, potentially doing some computational work and writing a report. The module leaders will direct you as to what is expected. The second Thursday of each module will involve presentations on the micro-projects in the morning followed by StatML day activities in the afternoon.

Students will commence work on their first of two mini-projects at the start of the year. Work on the first mini-project will take place from October until the beginning of February and students will then undertake their second mini-project between February and April (dates will differ for part-time students). In your mini project you will review and analyse current and existing research, providing your own commentary and insights. The projects will typically include some small problem for students to solve.

The purpose of the project work is twofold. Firstly, to train students to complete a small piece of independent research, and write it up in a coherent way, respecting standard scientific writing conventions. Secondly, this is a chance for students to find out more about supervisors, their subjects and how they work, and decide on potential doctoral projects. Usually, it would be expected that one of the mini projects will form the basis of a student's doctoral project. Further information on mini projects can be found in Section 7.

Following completion of the second mini-project, subject to supervisor availability and interest, students will choose a supervisor for their main doctoral research project. Students enrolled at Imperial will choose an Imperial lead-supervisor and students enrolled at Oxford will choose an Oxford lead-supervisor. We cannot promise students will get their first choice (supervisors have some say, and several students may choose the same supervisor). Also, depending on the funding arrangements for each student, some supervisor/supervision teams will already have been put in place during the admissions process. Having chosen a supervisor, students will spend the next three years working with their chosen supervisor carrying out a programme of research towards a doctorate. It is possible to be (co-) supervised by 2 (or more) faculty members.

Academic Terms

The timetable for the CDT runs independently of the universities' term structure - please see check for the full timetable. It is important to maintain a presence in the department and with the cohort as well as attend the various skills training and attend reading groups.

For information, the term dates for Imperial and Oxford are as follows:

The Imperial terms for 2022/2023 are as follows:

Autumn term	1 October 2022 - 16 December 2022
Spring term	7 January 2023 - 24 March 2023
Summer term	29 April 2023 - 30 June 2023

The Oxford terms for 2022/2023 are as follows:

Michaelmas term	9 October 2022 - 3 December 2022
Hilary term	15 January 2023 – 11 March 2023
Trinity term	23 April 2023 – 17 June 2023

Indicative Course Outline (subject to amendment)
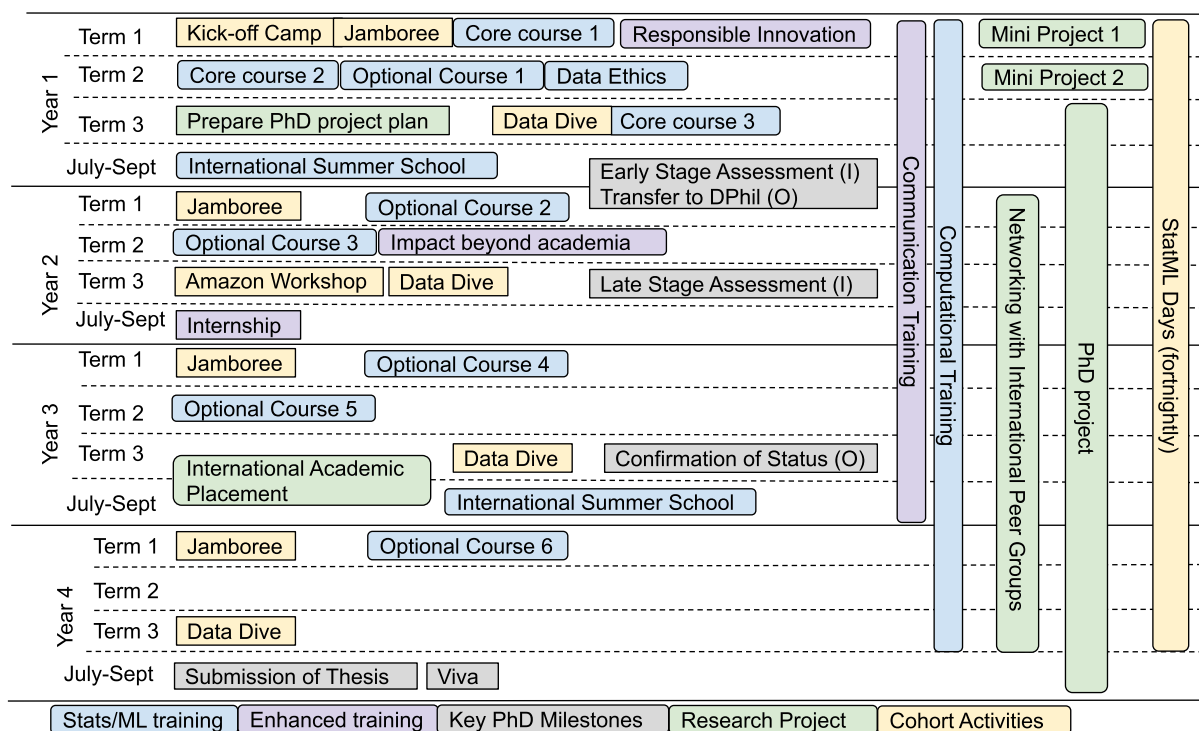
4.   StatML Activities

Kick-off camp
At the start of your first year on the course, you will attend the StatML Kick-Off Camp, which will take place in Oxford at the Department of Statistics. This will involve a chance for you to bond with your fellow students from both institutions, as well as the StatML Management Team.

Statistical Machine Learning study trip to Berlin
In the second year, you will travel to Amazon's research centre in Berlin. Senior academics and a senior Amazon researchers will co-design and co-lead an advanced training course on topics in Statistical Machine Learning and Computing for big-data analysis.

Summer School
StatML will organise international summer schools of which students are expected to participate in at least two. They will comprise a mix of mini courses lead by worldwide experts in their field and will include seminars and poster sessions.

International study visit in Year 3
In your third year, subject to satisfactory progress, you may undertake an international study visit, at an academic institution. We have many academic partners over the world: Europe, USA, Japan, or Australia. These universities have thriving statistics research with substantial PhD programmes in the CDT area of statistical science for data-intensive applications.

Internship
You will take part in two to three-month internships/placements with users of statistics and statistical machine learning in year 2. This is broadly conceived: internships could take place with industrial partners but also with research institutes such as the Francis Crick Institute or Rosalind Franklin Institute. The internship should help you gain an understanding of the constraints under which real statistics and machine learning works.

5. Staff

Axel Gandy
CDT Director
(Imperial)

Judith Rousseau
CDT Co-Director
(Oxford)

Arnaud Doucet
CDT Co-Director
(Oxford)
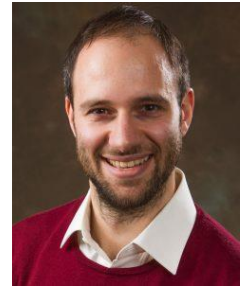
Patrick Rebeschini
Co- Director
(Oxford)

Mihai Cucuringu
Co-Director
(Oxford)

Sarah Filippi
Co-Director
(Imperial)

Ciara Pike-Burke
Co-Director
(Imperial)

Ruth Misener
Co-Director
(Imperial)

Joanna Stoneham
Centre Manager
(Oxford)

Vanessa Eyles
Centre Manager
(Imperial)

Other useful contacts...

IMPERIAL COLLEGE LONDON		
Title	**Name**	**Email address**
Director of the Graduate School	Professor Yun Xu	yun.xu@imperial.ac.uk
IT Support	Service Desk	service.desk@imperial.ac.uk
OXFORD UNIVERSITY		
Director of Graduate Studies	Professor Julien Berestycki	<mark>julien.berestycki@stats.ox.ac.uk</mark>
Academic Administrator	Jonathan Whyman	academic.administrator@stats.ox.ac.uk
IT support	Helpdesk	ithelp@stats.ox.ac.uk

Affiliated Staff: Imperial and Oxford's current pool of Supervisors can be viewed on the CDT website: https://statml.io/

6. Modules Outlines

The taught modules last two weeks each. Each module is led jointly by academics from Imperial and Oxford (this will increase interaction between these academics, thus encourage joint research projects). Each student undertakes 3 core modules (all undertaken in the 1st year) and 6 optional modules (undertaken over the four years of the course). Optional modules are shared across all cohorts to reinforce cross-cohort cohesion. Assessment for each module will be based on group projects with a written and an oral part.

MODULE 1:   **BAYESIAN MODELLING AND COMPUTATION:**

Course Leaders: Chris Holmes, Oxford
                        Nikolas Kantas, Imperial
                        Geoff Nicholls, Oxford

Date of Module: 10 October to 20 October

Background:

Modern applications involving high-dimensional data, possibly of different modalities (data types), often demand statistical models that require advanced computational tools for their fitting and evaluation. For Bayesian models this amounts to sampling from complicated conditional probability distributions defined on a variety of probability spaces and setups. Typical examples often lead to computationally intractable likelihood functions either due to numerical cost or to non-normalised density functions.

In these or similar contexts, Bayesian modelling and inference is highly valuable as it provides a framework for incorporating all aspects of uncertainty, but the requirement for intensive computation means that one cannot apply the methodology naively. As a result, advanced simulation algorithms have been developed that combine unbiased simulation and popular classical techniques such as Markov Chain Monte Carlo (MCMC) or Sequential Monte Carlo (SMC). The borderlines between formerly separate topics are becoming blurred, and it is increasingly useful to consider such techniques together.

Course Overview:

The course will begin with an overview of the foundations and principles of Bayesian modelling and computation based on motivating examples taken from recent graduate textbooks such as [1], [2]. Then a generic framework will be formulated so that classical simulation methods such as MCMC ([3]), SMC ([4]) and their hybrids ([5,6,7]) can be presented in detail. The focus will be on the methodology, the underlying theoretical principles, as well as practical aspects related to implementation such as computational cost and assessing efficiency. An emphasis will be placed on producing reproducible results with clear documentation and code repositories.

Finally, we will discuss contemporary topics and extensions related to approximate Bayesian computation and intractable likelihoods, scalable inference (using subsampling & distributed inference), improving efficiency and tuning using adaptation, efficient sampling based on continuous time stochastic processes, and techniques for high dimensional models. The discussion of these advanced topics will be organised around student led projects and presentations based on key recent seminal papers and modern real-world examples.

The projects will emphasise on applying these advanced simulation methods to challenging realistic applications and datasets from diverse applications such as bioinformatics, econometrics, computer vision and imaging, climate modelling, epidemiology, transport, and social sciences.

MODULE 2:   **STATISTICAL MACHINE LEARNING**

Course Leaders: Yee Whye The, Oxford
                         Mark van der Wilk, Imperial
                         Cedric Archambeau, Amazon

Date of Module: 24 October to 3 November

Abstract:

Machine learning techniques enable us to automatically extract features from data to solve predictive tasks and are now used in increasingly varied contexts. There are now strong interactions between machine learning and statistics and statistical machine learning is the symbiosis of these two branches of data science. This course will cover the fundamentals of statistical machine learning starting from empirical risk minimization which is at the core of most machine learning procedures. We will review key recent advances around kernel methods, deep learning, generative models.

One of the crucial aspects of successful machine learning procedures is their implementation via efficient algorithms. We will thus present typical optimization algorithms in high dimensions and various ideas around approximate inference

MODULE 3:   **MODERN STATISTICAL THEORY:**

Course Leaders: Alastair Young, Imperial
                         George Deligiannidis, Oxford

Date of Module: 7 November to 17 November

Abstract:

Classical statistical theory focuses on a context where the number n of experimental units is large compared to the number p of unknown features or parameters. Most statistical theory provides results on estimation and testing for an asymptotic regime where p is fixed, and n tends to infinity. This theory is powerful but must be adapted to the modern setting of large-scale inference/high dimensional data, where p is large and/or grows within. The module will discuss key underlying concepts of modern theory, including sparsity; oracle estimation and inequalities; concentration inequalities; Stein's method and other mathematical tools. These be applied in discussion of important components of theory and methodology, for instance, large-scale (multiple) testing and estimation, model selection, high-dimensional regression, empirical Bayes strategies and inference after model selection.

Optional Modules

Optional modules will allow the students to explore more in depth some specific aspects.
Optional courses will run every second or third year and be open to all cohorts.

We will have the following list of optional courses:

1.   Advanced Monte Carlo methods

2.   Causality and Graphical models

3.   Networks

4.   Nonparametric Bayes

5.   Modern Asymptotics

6.   Optimisation

7.   (Deep) learning Theory and Practice

8.   Reinforcement learning and Multi-Armed Bandits

9.   Applied statistics

10.   Genetics/ computational biology

In 2022/2023, we are proposing four optional courses which will be confirmed closer to the start of the year.

7.   Projects and Supervisors

Mini-Projects
Students will undertake two mini-projects within their first year (the first between **Monday 21 November and Friday 3 February** and the second between **Monday 13 February and Friday 28 April).** Students are required to produce a dissertation for each project in the style of a research paper with a limit of 5,000 words including references, abstracts and appendices. While original and independent insight is important, students are not required to make substantial research contributions at this stage. The mini-project dissertations will be assessed by the project supervisor and the CDT director/co-directors.

All students will be aware of the topic of their first mini project prior to starting the course. For those students who receive funding from industry, they will work with your supervisors to establish a topic for their second mini project. For students who are not working with an industry partner, a new list of potential projects will be circulated in December. In some cases, project supervisors may be able to accommodate more than one student on a project. Students can construct their own project or revise one of the published projects. Students are expected to choose a lead-supervisor from the institution which admitted them, although co-supervision between institutions is permitted and encouraged.

Submission dates for the mini projects, via the Canvas assignment tool, are as follows:

1st mini-project deadline: **Midday, Friday 3 February**
2nd mini-project deadline: **Midday, Friday 28 April.** The mini projects are a good way for students to get to find out if some area is of interest to them. Towards the end of the second term, late in the second mini-project, students will submit the names of their chosen supervisors and research areas to the CDT Scientific Committee. The deadline for submitting the names of their full PhD/DPhil supervisors and a working title for their thesis is **Friday 26 May**.   Students are encouraged to use one of their mini projects as the starting point for their PhD project.

The Supervisory Relationship
This is a crucial relationship and will underpin the success of the research studies undertaken.

The Oxford Learning Institute's Research Supervision website. New link needed

Some advice for PhD students from the Imperial side can be found at
https://www.imperial.ac.uk/students/success-guide/pgr/

The UKRI also provides advice for students on their website
(https://www.epsrc.ac.uk/skills/students/help/guidance/).

8.   Feedback, Monitoring and Assessment

Assessment

Work will be assessed via termly reports from the student and their supervisor in years 2-4, and through formal milestones. Progression and milestones are described in section 9 of this document.

For each module, students will submit a report (towards the end of the second week of the module) and give a short presentation. These are marked and given a single combined grade. Feedback is an important part of teaching and learning. The primary purpose of our assessment is to help students develop as an independent researcher. The module leader will provide more informal oral feedback on the report (later in the second week) and presentation (Friday of the second week). Further oral feedback will be provided by fellow students on the programme and other invited participants.

Students will receive oral and written feedback on their two mini-projects.

Monitoring

There are other less formal milestones which are part of our progress monitoring. In the first year, each student will have a short end-of-term interview with the CDT Directors. In years 2-4, supervisors and students agree a termly report.

Feedback

There will be formal and informal channels for students to feed back to the Directors, and their institutions, on their experience of the course. In the first-year students will be asked for regular feedback on how well they think the course is being run. Termly monitoring reports are another conduit for feedback. Surveys will be circulated for completion at the end of Induction Week and at the end of each Module. This information will be fed back and used to improve the Programme and secure new students for the coming years.

Oxford

Each term, it is **compulsory** for students to write a short report on their progress, including training, on the Graduate Supervision Reporting (GSR), which is accessible via student self-service, https://www.ox.ac.uk/students/selfservice. GSR is open for student reporting in weeks 6 and 7 of each Oxford term. From week 8 onwards each term, the supervisor is responsible for writing a report about the student on GSR.

CDT students are invited to elect one or two representatives who can act as a link with the staff in the Department of Statistics and bring to light and discuss any general concerns that might arise. The representative(s) will be invited to attend the Graduate Liaison Group which meets once a term.
See. https://www.stats.ox.ac.uk/student-resources/research-degrees/graduate-liaison-group/.

Imperial

Student Experience Survey (SES)

There are a variety of means for students to feedback on their Imperial experience, including the Union's Student Experience Survey (SES) which will be run at the end of the Autumn Term. This is the only College-wide survey in which research students will be asked to participate.
The survey will cover the induction process, welfare, pastoral and support services experience. When the survey is open students will receive an email in your Imperial College account with a link to it.

Postgraduate Research Experience Survey (PRES)

Imperial also participates in the national, biennial, Postgraduate Research Experience Survey (PRES) run by the Higher Education Academy (HEA). This survey is important as it allows the College to benchmark itself against other UK higher education institutions.

PRES covers topics such as supervision, research community, progress and assessment, opportunities and research skills. It also includes a few extra questions about issues that are particularly important to us at Imperial such as graduate teaching activities and professional development. The survey takes place every two years and the College will next participate in PRES 2021.

For further information on surveys please contact the Registry's Surveys Team at: surveys.registrysupport@imperial.ac.uk

The Staff-Student Committee is designed to strengthen understanding and improve the flow of communication between staff and students and, through open dialogue, promote high standards of education and training, in a co-operative and constructive atmosphere. College good practice guidelines for staff-student committees are available here: http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/student-feedback/

9.   Progression and Graduation

Progression and Graduation for Oxford-bound CDT students
During the first year you will be assessed in the same way as the Imperial-bound CDT students. Having completed two mini-projects, each student will choose a supervisor at Oxford and continue at Oxford.

Your first important milestone is at approximately 18 months (before the end of the fifth term). It is called "Transfer of Status". New research students join the University as Probationer Research Student (PRS). You should apply to transfer to DPhil status ***before the end of the fifth term from admission***.

You should complete the '**Preparing for Transfer of Status'** form to complete your termly reflective progress report for the term before you expect to transfer, following your supervisions/meetings with your supervisor(s), and upload it to GSS using the 'Upload File' facility. The questions are designed to help you reflect on the criteria your assessors will be considering for your transfer examination.

The MPLS Division has prepared a useful **checklist for transfer of status** and a **project initiation plan**, which you should consult:

https://www.mpls.ox.ac.uk/graduate-school/information-for-postgraduate-research-students/progression

In order to pass the transfer of status milestone you submit a report outlining the research you have done and what you plan to do for your thesis. You will have an interview with two assessors. The assessors review the transfer report and any reports on transferable and broadening training) and give feedback to you and your supervisor. This feedback will include an assessment of the viability and suitability of the proposed research, and of its completion on a reasonable timescale. Your assessors may recommend a range of possible outcomes, including transfer to DPhil status without reservations, transfer to DPhil status with conditions, or transfer to the relevant lower degree, subject to the opportunity to make a further application.

Your second major milestone is at 36 months (before the end of the 9th term). It is called "Confirmation of Status". The purpose of confirmation of status is to check you are on track to submit within approximately 6 months. You should apply for confirmation of DPhil status ***no later than the end of the ninth term from admission***. In order to pass this milestone, you should submit a summary of your work to date (usually publications or draft chapters from your thesis) and a timetable for submission of your thesis. You will have an interview with two assessors. The assessors review your work and check that you have completed the necessary broadening and transferable-skills training and give feedback on your research. The feedback content is usually suggestions for further research or minor corrections. If a candidate's application for confirmation of status is unsuccessful, the board may approve a transfer from DPhil to MSc by Research status, subject to the opportunity to make a further application.

There are other milestones at the end of each term (approximately every 3 months) at which you and your supervisor give progress reports via the Graduate Supervision System. For further information see section 8. These are reviewed by the CDT directors and the Director of Graduate Studies at Oxford. If for a short time you are unable to pursue your research, due to sickness or other exceptional circumstances you may apply for suspension of your student status. Time spent in this state does not count towards your next milestone deadline.

You are expected to submit your thesis within four years of full-time study. Your supervisor will consult with you on the appointment of examiners, and two examiners will be chosen. You will be examined on your thesis in a viva. Further information on the viva process can be found here: https://www.mpls.ox.ac.uk/graduate-school/information-for-postgraduate-research-students/examination

For transfer confirmation, examination, extension of time, suspension of status and withdrawal please refer to https://www.stats.ox.ac.uk/student-resources/research-degrees/.

Examination Procedures and Course Regulations
Information regarding the university's examination procedures can be found here: http://www.ox.ac.uk/students/academic/exams

Information about the stages of the research degree and examination regulations for the course are available via: http://www.ox.ac.uk/students/academic/guidance/graduate/research.

Proof-reading
It is the responsibility of the students to ensure that their thesis has been adequately proof-read before it is submitted. The student's supervisor may alert them if they feel further proof-reading is needed, but it is not their job to do the proof-reading. The student should proof-read their own work, as this is an essential skill in the academic writing process. However, for longer pieces of work it is considered acceptable for students to seek the help of a third party for proof-reading. Such third parties can be professional proof-readers, fellow students, friends or family members (students should bear in mind the terms of any agreements with an outside body or sponsor governing supply of confidential material or the disclosure of research results described in the thesis). Proof-reading assistance may also be provided as a reasonable adjustment for disability. The student's thesis may be rejected by the examiners if it has not been adequately proof-read.

The University's Policy on the Use of Third Party Proof-readers may be found here: https://academic.admin.ox.ac.uk/policies/third-party-proof-readers.

Progression and Graduation for Imperial bound CDT students

Milestones: The College requires that we keep track of PhD students' progress to make sure that everything is progressing as it should, and to identify where further support might be needed. This is done by completing several Milestones:

- Research Plan Confirmation: this should be completed within three months for both part-time and full-time students. The Research Plan will be a brief description of your research area, around 2-4 pages long. Your supervisor will read it to make sure everything is going as it should.

- Early Stage Review: 12 months (full-time students) 24 months (part-time students). The review will be an overview of your work so far, around fifteen pages, and will be followed by an oral assessment to ensure you're on the right track.

- Late Stage Review: 18-24 months (full-time students) | 30-36 months (part-time students). This will be a more in-depth review of your work, around thirty pages.

This too will be followed by an oral assessment. These Milestones are an important part of your degree, and you will not be able to progress unless you complete them. As well as helping us make sure you're on track, they are a good opportunity for you to assess how things have been going.

Below you can find more in-depth explanations of the Milestones, and details of what you must do to meet each of them:

Academic Regulations Academic and Examination Regulations

The College academic and examination regulations for the award of research degrees can be viewed here:
http://www.imperial.ac.uk/about/governance/academic-governance/

The Regulations for Students can be viewed here:
http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

Examination Procedures Examination Entry: Before you can submit your thesis or be examined on it you, your supervisor and your department will need to complete examination entry forms. You should aim to submit your examination entry forms at least four months before you would like to submit your thesis, or four months before your final submission deadline. This means submitting your forms no later than 44 months after your start date if you are a full-time student, or 68 months after your start date if you are a part-time student.

Please note that submission of your thesis is not permitted until you have completed the minimum registration period. Before you submit the examination entry forms you should ensure that you have completed all your Milestones, and that the Registry has received all relevant documentation. Further details can be found here:

https://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/research-programmes/

Thesis Submission:
Once you have submitted your examination entry forms you will be advised when it has been processed. You will then be able to submit your thesis. You will not be able to submit a thesis without a valid examination entry and the examination entry form must be signed by the Director of PG Studies.

Please read the submission requirements carefully to ensure you submit your thesis in the correct format. When you submit your thesis, you need to also email a copy of the Thesis Declaration Form directly to the Registry. Your thesis must be submitted electronically via the eThesis website: www.ethesis.co.uk.

Further details can be found here:
http://www.imperial.ac.uk/student-records-and-data/for-current-students/research-degrees/examination-information/thesis-submission--vivas/

Viva:
Once you have submitted your thesis, Registry will ensure that copies are provided to your examiners in advance of your viva examination. Your supervisor, or another member of staff in your department, will be responsible for organising the viva and making all the necessary arrangements.

When your viva has taken place, you may be informed of the outcome by the examiners. One possible outcome is that you may be asked to make some minor corrections to your thesis before submitting the final copy and being awarded your degree.

Once you have submitted the final thesis and your examiners have agreed that they are satisfied, the Registry will write to you confirming the award of your degree. Your degree certificate will be issued after this date.

Online publication of thesis:
Your final thesis must be submitted online by uploading to Spiral, the College's digital repository. Please note that your submission will be checked by Research Degrees before being released to the Spiral team in the library, and your thesis will only be made publicly available on expiry of any agreed embargo. Information on how to prepare your thesis for electronic publication on Spiral can be found here:
http://www.imperial.ac.uk/admin-services/library/find-books-articles-and-more/theses/

E-theses:
The College recognises that theses contain unpublished work created for examination and that in some circumstances it may be necessary to delay their public release. This is referred to as an embargo. An embargoed thesis will not be available to read, on Spiral or in print, until an agreed date. Students should discuss with their supervisor whether their thesis should be embargoed and tick the appropriate box on the Thesis declaration form. Please contact the Research Degrees Team if you have any queries regarding the e-theses policy or an embargo: 0207 594 6087
research.degree@imperial.ac.uk

Please note: All Imperial PhD students are expected to complete a programme of professional skills development training as prescribed by the Graduate School. Failure to complete the requisite training will delay a student passing the Early Stage Assessment and/or Late Stage Review, with consequential implications for progression and admission to the final PhD examination:

https://www.imperial.ac.uk/study/pg/graduate-school/students/doctoral/professional-development/

10.   Skills Learning

Transferable Skills Training
The PhD/DPhil is a period of professional research training during which you will develop advanced specialist skills and knowledge, as well as broader transferable skills to equip you for a range of careers. You are expected to engage in at least 10 days of transferable skills training, per year and in fact we anticipate your spending rather more time than this.

Skills Training (Oxford based)
You will need to ensure by the time you reach your Transfer of Status (18 months from the start of this programme), you have spent a minimum of 10 days on transferable skills courses. Engagement with transferable skills training is a requirement of your Transfer of Status. You will be directed to transferable skills courses/opportunities and you will need to keep your own record throughout the year.

You will be encouraged to choose courses of interest to you from a wide array of courses on offer in the two universities to further develop your transferable skills. The MPLS Division also offers training to help you in your journey to become a successful researcher: https://www.mpls.ox.ac.uk/training (can only be accessed once you have your university single sign on and username).

Professional Development skills and Skills Training (Imperial based)
All PhD students are expected to complete a programme of professional skills courses as prescribed by the Graduate School. Failure to complete the requisite training may result in a student's registration being transferred from PhD to MPhil or in a student being barred from entering the PhD (or MPhil) examination. See 4.2 of the Regulations for the award of PhD and MPhil. ⬚ Students must complete 4 courses, 2 by the Early Stage Review and another 2 by the Late Stage Review.

If you have not completed this requirement, the College may transfer your registration to MPhil. If you subsequently fulfil the professional skills development requirement, and have otherwise successfully completed the Early Stage Assessment, the department may request a transfer of registration from MPhil to PhD. The date of PhD registration will, in this case, be taken as the date of your initial PhD registration.

All information can be found here: http://www.imperial.ac.uk/study/pg/graduate-school/

Broadening Training
You will spend a minimum of 100 hours in training in mathematical and statistical methods outside your area during your doctoral training. This is recorded and monitored at the key transition points in the degree. You can choose from a wide range of courses available to you at your university. At Oxford this is centrally organized through the MPLS Graduate Academic Program (GAP).

Responsible Innovation
Responsible Research and Innovation (RRI) aims to ensure the sustainability, acceptability and desirability of research processes and outputs. Presume this is now not the case

Public Engagement
Public engagement is becoming increasingly important in the field of academia and is applicable to many other career paths also. The CDT aims to build a supportive culture for public engagement whereby each student from both Imperial and Oxford cohorts is involved in public engagement on a regular (at least annual) basis. Students are required to report back on their involvement in public engagement activities. An introductory training session on public engagement will be organised by the CDT.

There is also support available from the MPLS division in terms of further training and opportunities to get involved with public engagement activities:

Oxford link:

https://www.mpls.ox.ac.uk/public-engagement

Imperial link:

https://www.imperial.ac.uk/study/pg/graduate-school/

There is the expectation that each student will get involved in at least one public engagement activity every year.

Enterprise Skills Programme
The MPLS Division (Oxford) has designed a programme of courses and events which use Enterprise as a forum for developing research skills and Research as a way of highlighting all that enterprise might offer: https://www.mpls.ox.ac.uk/enterprise

Lunchtime Seminars on StatML Days
Throughout the programme, you will be encouraged to develop an awareness of the importance of your doctoral training not only within the international development of statistical methodology and analysis but also its relevance to industry and society. There will therefore be the opportunity to invite industrial partners to attend and speak at our lunchtime seminars, which will take place at the StatML days.

Research integrity

Research integrity is a commitment to creating an environment that promotes responsible conduct by embracing standards of excellence, trustworthiness and lawfulness. The Cohort expects its students to maintain the highest standards of integrity in their research.

For individual researchers, research integrity entails a commitment to a range of practices including:

- intellectual honesty in proposing, performing, and reporting research;
- accuracy in representing contributions to research proposals and reports;
- transparency in handling conflicts of interest or potential conflicts of interest;
- protection of human participants in the conduct of research;
- humane care of animals in the conduct of research.

There are no universally correct ways to do research. There are, however, standards of practice which apply generally. Researchers should:

- be aware of the legislation, codes of practice and University policies relevant to their field;
- have the necessary skills and training for their field;
- comply with your University and funder policies relating to research data management;
- be aware of the publication rules for the journals they want to publish in;
- ask if they feel something isn't quite right;
- not ignore problems;
- be accountable to the University and their peers for the conduct of their research.

All researchers are expected to be committed to ethical principles and professional standards. Not upholding such standards, either intentionally or through lack of knowledge, damages the scientific process and may harm research participants, colleagues, the University and society.

Policies and resources

Oxford Links

All those involved with research at Oxford are expected to read and abide by the University's [Code of Practice and Procedure for Academic Integrity in Research](#).

Students in the MPLS Division are required to complete the online Research Integrity[1] course by the time they apply for Transfer of Status. The Division also offers face-to-face Research Integrity[2] training which complements the online course.

The University's [Research Integrity website](#)[3] contains a number of additional resources, including links to information on authorship, conflicts of interest, research data management, health and safety, human participations in research, intellectual property, research involving animals, and research misconduct.

Your supervisor will play an important role in helping you to develop skills for good practice in research and is the first person you should ask if you have queries about any aspect of research integrity. Other sources of support and advice include your Director of Graduate Studies, other academics in your department, and the ethics advisors in University [Research Services](#)[4].

Imperial Links

Code of Practice for Research Students

Students are required to comply with Imperial College London degree regulations and other College procedures and regulations, including following College safety requirements and procedures. The College has developed a code of practice for research students, which gives advice on all stages of a research degree. You can find it here: http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

Code of Student Discipline
The Code of Student Discipline details the regulations regarding complaints regarding breaches of discipline by students, and for rights of appeal where appropriate, and sets down the penalties that may be imposed, including termination of membership of the College.

Departmental Graduate student poster presentations
For Oxford students, in your second and third year you will be expected to present a poster at the departmental graduate poster session which takes place in late Hilary or Trinity Term. This is an opportunity to showcase your research to other students and members of the faculty. This will be replaced by a talk to the wider department in your fourth year. StatML students are also expected to present posters at the Annual Workshop in early October.

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[1] https://www.mpls.ox.ac.uk/training/resources-for-researcher-and-career-development/for-research-staff-resources-to-support-your-work-and-your-career-development/research-ethics-and-integrity

[3] to https://researchsupport.admin.ox.ac.uk/governance/integrity
[4] https://researchsupport.admin.ox.ac.uk/about

Seminars in Statistics
The Department of Statistics at Oxford organises distinguished speaker seminars usually on Fridays during term. Further information can be found at https://www.stats.ox.ac.uk/news-events/events/distinguished-speaker-seminar-series/

Reading Groups
See https://www.stats.ox.ac.uk/news-events/ for links to other departmental reading groups.

Departmental Graduate Lectures
Students are also welcome to attend the Graduate Lectures, which are aimed specifically at research students: https://www.stats.ox.ac.uk/news-events/events/graduate-lectures/.

Teaching
Being taught to teach is regarded as a fundamental part of training for an early career researcher and an opportunity for you to engage and be integrated into the life of your host department. Starting in the second year, Oxford based students will teach in their host department. This will be approximately 12 contact hours (paid) per year for years 2-4. You may teach undergraduate or graduate courses. This is mentored teaching, beginning with marking, to reach a point where you are leading whole classes of 10 or 12 undergraduate students. You will have the support of a mentor and get written feedback at the end of each block of teaching.

Oxford based students wishing to take on additional paid college-based teaching should check with their supervisor and the Director of Studies, Dr Neil Laws (laws@stats.ox.ac.uk), before making any commitment. This does not count towards the 12 hours of teaching the Department expects.

Information on opportunities for Imperial based students to become Graduate Teaching Assistants is available here https://www.imperial.ac.uk/study/pg/graduate-school/students/doctoral/gta/

The website contains the GTA Framework, a roles and responsibilities document, a central register of all trained GTAs (updated termly), links to departmental websites where GTA job opportunities are advertised and examples of good practice case studies.

Conference Attendance/Travel Funding
StatML has provision for travel for research collaboration and training. Besides the regular travel between Imperial and Oxford, there is funding for the Amazon study trip to Berlin in the second year, the international study visit in third year, and a user placement at an industrial company. There is also up to £2500 in UKRI funding to support one or more conference trips for each student for the programme duration. Additional monies may be available from your college (for Oxford students) and from your department. You should discuss conference travel with your supervisor from the third term onwards.

Internships
There are opportunities to undertake industrial placements. The CDT has several partners in industry, including some of the world's leading pharmaceutical, consumer, technology, and finance firms.

Students who wish to undertake a work placement or internship should discuss this with their supervisor in the first place and obtain the department's agreement in advance of organising the placement/internship which should be well justified, i.e. related to the student's training as well as providing valuable transferable skills. An agreement from the department is subject to a satisfactory status of the student's academic progression and agreement from supervisor.

The placement may be an integral part of the PhD, in which case a suspension/temporary withdrawal of the student's registration time is not required, provided the placement meets the rules of the

funder/sponsor (see below). In other cases the internship is not directly integral to the PhD and the student will be required to suspend the PhD which usually is a preferable solution as it 'stops the clock' with respect to the registration time and thus does not eat into the total time available for PhD research.

Students who wish to take an internship or placement need to make sure they are acting according to the rules of their funders/sponsors. In particular, students receiving funding from the UKRI (check with the Centre Manager if you are unsure) are required to adhere to the **Training Grant guidelines** of their scholarship available at:

https://epsrc.ukri.org/skills/students/guidance-on-epsrc-studentships/placements-and-internships/

Students should be aware, that if they are receiving payment for the placement then the studentship must be suspended.

11.   Resources

Computing

It is the responsibility of the Department of Maths at Imperial and the Department of Statistics at Oxford to ensure that CDT students have access to adequate personal computing resources to enable them to work effectively on their projects. The computing facilities provided will necessarily vary from University to University.

All StatML students will be provided with a laptop and desk space in their respective universities and when they meet at the other university, they will hot desk. Students should discuss what computing facilities are available to them with their supervisor(s). If there is an issue with the computing provision, then this should be discussed with the student's supervisor(s), and if this issue is not resolved satisfactorily then the issue should be raised with the respective CDT Director or Centre Manager.

Oxford links

All CDT Students will have access to the Department of Statistics computing facilities. Other courses, particularly those on high-level programming languages, which are provided by the University's IT Services in Banbury Road may be of interest to students http://www.it.ox.ac.uk/.

You should also make yourself aware of the following departmental documents:

- Guide to Computing Services
- Guidelines for Examining Users' Data
- Security and Privacy of Files
- Policy Statement on Computer Use, Monitoring and Surveillance.

These are available at along with details of how to use your laptop on the Oxford Wireless LAN. New link needed

Libraries
The Department of Statistics has its own small library in LG.05 (basement floor).

The University Card also serves as a library card and will allow access to the Radcliffe Science Library (RSL) in Parks Road, and the Social Studies Library, Manor Road. A map can be found at https://www.ox.ac.uk/visitors/map**.**

The Physical Sciences Librarian with responsibility for the statistics collection in the RSL is Catherine Dockerty (email: catherine.dockerty@bodleian.ox.ac.uk). A specific training session for statistics research is held in Michaelmas Term. Nuffield College, located on New Road, has a good selection of staff books which can be borrowed by statistics research students.

College libraries may also be useful although access is usually restricted to members of that college. Links to the University's e-resources, including electronic journals can be found at https://libguides.bodleian.ox.ac.uk/onlinelibraryresources/home.

Process for borrowing a book at Department of Statistics

The Department has its own small library in the lower ground floor of the St Giles' building. A current University card is required for registering and for entry to the library. The library door should be kept locked at all times, so please ensure the door is closed after entering and exiting. Only the Librarian or administrative staff may give access to non-members of the Department.

Finding books
There is a computer in the library for searching on the University Catalogue, SOLO, if required. Most books are catalogued via the Library of Congress system and shelves are marked with topics. If you are struggling to locate a book, please e-mail lib@stats.ox.ac.uk.

Borrowing books
Research students can borrow up to 9 books at a time, with a load period of 4 weeks. To borrow a book, **you must use the self-issue machine**, located on top of the book return box. The Department is small and so is the library budget, missing books have to be replaced, reducing the budget for new books. Any items without a barcode in the front of the book cannot be borrowed.

Renewing books
Books can be renewed a maximum of 9 times, after which they must be returned. You can renew a book via SOLO or by e-mailing lib@stats.ox.ac.uk. Please note that if a book is overdue or requested by another patron then renewal by patrons is not possible.

Returning books
Returned books should be left in the book returns box in the library. There is no need to scan the book. If another patron has requested a book, please return in a timely manner. If books are overdue, then reminder notices will be sent out by e-mail.

Reserving books
Reservation requests can be made via SOLO. Reserved books can be collected from office G.09 in the Department.

Rules of conduct
These rules apply to all library readers. Breaches of library rules may lead to suspension of borrowing privileges, fines or suspension from the use of the library.

- Every book borrowed must be recorded on the self-issue computer in the library. Books must be returned by the due date or renewed. Any book recalled by the library must be returned as soon as possible.

- Returned books must be replaced in the returns box. A reader is responsible for a book until it is returned to the library.

- Replacement costs will be charged for lost, damaged or defaced books.

- The library self-issue and catalogue computers **must not** be unplugged or switched off.

- Personal belongings should not be left unattended in the library at any time. Any such items will be removed. The Department will not be responsible for personal belongings which are stolen or damaged.

- Photocopies may only be made in compliance with copyright law.

Imperial links

Books and Library facilities

The Central Library is next to the Sherfield Building (building number 25 on the map of campus). The Library has extensive electronic resources, including electronic databases, electronic books and full text electronic journals. Students can search for electronic resources, using the on-line library catalogue and web pages, and access them from anywhere on and off campus. The Library has extensive print and electronic collections on Mathematics and Earth Systems topics, which support related research and teaching within the College. The Central Library also houses the Haldane Library, with a good general collection (fiction and non-fiction) and a music library.

If you are using a computer connected to the Imperial College London network and have logged in with your College username and password, you will be able to access most e-journals, e-books and databases directly and will not need to sign in again. For full access you must be a member of Imperial and have a current computer account (College username and password).
http://www.imperial.ac.uk/admin-services/library/find-books-articles-and-more/passwords-and-working-off-site/

Printing and photocopying

Printers are provided in the EPSRC CDTs hub and are activated using your ID card via the ICT print service – check the link below for information on using this service:

https://www.imperial.ac.uk/admin-services/ict/self-service/

Research Students are also encouraged to use the ICT Printservice Printers located in the Maths Learning Centre on Level 4. Both a B/W and a Colour Printer are located there. Further printers are available in Huxley 212 (colour) Huxley 215 (mono), Huxley 516 (mono), Huxley 603 (mono A3) and Huxley 633 (colour). When the Huxley building is closed there are other printers in the Main College Library which are part of the ICT Printservice and the Main College Library is open 24/7 for most of the year.

All research students should be provided automatically with an allowance for printing/copying (a printing credit of £50. This credit may be topped up by making a payment online or in the Main Library where there are machines that take UK Bank Notes. If you have problems with these machines or your allowance, please contact the Centre Manager. Please report any Problems with ICT machines directly to ICT - do not try to correct problems yourself.

12.   Administrative Matters

Social Media
Our social media channels will be updated regularly, and we will be promoting your projects and events so if you have any relevant news that will be of interest to our cohort and our internal and external stakeholders please let us know.

Website: https://statml.io
Twitter: @StatMLIO

Attendance
During the taught modules you are expected to attend the CDT from Monday - Friday. This also includes all organised events: workshops, away days, mini-symposia, graduate seminars and poster presentations. If you need to be away for some good reason, please ask a member of staff. It is important you let your module leader and the Centre Manager know if you are going to be absent at any point.

Holidays
You should agree any days off in the working week (Monday-Friday) with your Module Leader or Supervisor, depending on the time of the year.

Absence/Illness
If you are unable to attend the CDT due to illness or unforeseen circumstances, please you contact your respective Centre Manager, as soon as possible. It is important for us to know your whereabouts as we have a duty of care. If the absence is prolonged, normally four weeks or longer, it will become necessary to request an interruption of studies. This included any absence during the summer term.

Oxford links

Residence Requirements
For information required minimum residence requirements regarding your DPhil for Oxford students, please see
https://www.ox.ac.uk/admissions/graduate/applying-to-oxford/university-policies/residence-requirements.

Student parents
Information for students who are, or who are about to become parents can be found at
https://www.ox.ac.uk/students/welfare/childcare?wssl=1

Travel
Where students are travelling on University of Oxford business, a University travel insurance scheme operates. Please consult the CDT Manager room G.11, before making travel bookings; application and risk assessment forms should be completed if insurance is required.

Imperial Links

Accommodation
The College has several offices which may provide you with help in finding accommodation. Short-term accommodation, either in the form of a College guest room or a local hotel may be booked through the College Conference Office. https://www.imperial.ac.uk/visitors-accommodation/

For long-term accommodation, students should go to Student Hub, Level 3 Sherfield Building, South Kensington Campus 020 7594 9444). Outside of the College, two of the most useful sources of listings are The Evening Standard and Loot, both published on six days of the week. **https://www.imperial.ac.uk/study/campus-life/accommodation/**

Student Parents

An early discussion should take place between the student and supervisor and a full risk analysis to determine whether there may be any possible adverse effects of the programme on the course of the pregnancy (e.g. programme of study, examinations or other hazards) leading to the development of an agreed action plan to mitigate all identified risks. More information on policy on maternity, adoptive and paternity leave provision for students can be found here:

https://www.imperial.ac.uk/students/fees-and-funding/general-support/childcare/

Travel

All staff and students travelling on College business are automatically covered by the College's insurance policy. It is worth taking a copy of the cover note with you. This can be obtained from Centre Manager.

If you do plan to go away during term time, even if only for a few days, please speak to the Cohort Mentors or Centre Manager beforehand and leave details indicating where you can be contacted.

Academic Integrity and the avoidance of Plagiarism

Oxford University's code of practice concerning academic integrity in research is set out on the website at: https://hr.admin.ox.ac.uk/academic-integrity-in-research, and, while the code's principles relate specifically to the conduct of research, *all* graduate students are advised to make themselves aware of the document's contents.

The University code of practice on Public Interest Disclosure can be found at: https://hr.admin.ox.ac.uk/public-interest-disclosure-whistle-blowing-code-of-practice.

As a student of Imperial College, you are expected to conduct all aspects of your academic life in a professional manner. A full explanation of academic integrity, including information on the College's approach to plagiarism is available on this page (Cheating Offences Policy & Procedure):
http://www.imperial.ac.uk/about/governance/academic-governance/regulations

Plagiarism

Plagiarism is the copying or paraphrasing of other people's work or ideas into your own work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition. Collusion is another form of plagiarism involving the unauthorised collaboration of students (or others) in a piece of work.

Cases of suspected plagiarism in assessed work are investigated under the disciplinary regulations concerning conduct in examinations. **Intentional or reckless plagiarism may incur severe penalties, including failure of your degree or expulsion from the university.**

Why does plagiarism matter?

It would be wrong to describe plagiarism as only a minor form of cheating, or as merely a matter of academic etiquette. On the contrary, it is important to understand that plagiarism is **a breach of academic integrity**. It is a principle of intellectual honesty that all members of the academic community should acknowledge their debt to the originators of the ideas, words, and data which form the basis for their own work. Passing off another's work as your own is not only poor scholarship, but also means that you have failed to complete the learning process. Deliberate plagiarism is unethical and can have serious consequences for your future career; it also undermines the standards of your institution and of the degrees it issues.

What forms can plagiarism take?

- **Verbatim quotation of other people's intellectual work without clear acknowledgement.** Quotations must always be identified as such using either quotation marks or indentation, with adequate citation. It must always be apparent to the reader which parts is your own independent work and where you have drawn on someone else's ideas and language.

- **Paraphrasing the work of others by altering a few words and changing their order**, or by closely following the structure of their argument, is plagiarism because you are deriving your words and ideas from their work without giving due acknowledgement. Even if you include a reference to the original author in your own text you are still creating a misleading impression that the paraphrased wording is entirely your own. It is better to write a brief summary of the author's overall argument in your own words than to paraphrase sections of his or her writing. This will ensure you have a genuine grasp of the argument and will avoid the difficulty of paraphrasing without plagiarising. You must also properly attribute all material you derive from lectures.

- **Cutting and pasting from the Internet.** Information derived from the Internet must be adequately referenced and included in the bibliography. It is important to evaluate carefully all material found on the Internet, as it is less likely to have been through the same process of scholarly peer review as published sources.

- **Collusion.** This can involve unauthorised collaboration between students, failure to attribute assistance received, or failure to follow precisely regulations on group work projects. It is your responsibility to ensure that you are entirely clear about the extent of collaboration permitted, and which parts of the work must be your own.

- **Inaccurate citation**. It is important to cite correctly, according to the conventions of your discipline. Additionally, you should not include anything in a footnote or bibliography that you have not actually consulted. If you cannot gain access to a primary source you must make it clear in your citation that your knowledge of the work has been derived from a secondary text (e.g. Bradshaw, D. *Title of book*, discussed in Wilson, E., *Title of book* (London, 2004), p. 189).

- **Failure to acknowledge.** You must clearly acknowledge all assistance which has contributed to the production of your work, such as advice from fellow students, laboratory technicians, and other external sources.

- This need not apply to the assistance provided by your tutor or supervisor, nor to ordinary proofreading, but it is necessary to acknowledge other guidance which leads to substantive changes of content or approach.

- **Professional agencies**. You should neither make use of professional agencies in the production of your work nor submit material which has been written for you. It is vital to your intellectual training and development that you should undertake the research process unaided.

- **Autoplagiarism**. You must not submit work for assessment which you have already submitted (partially or in full) to fulfil the requirements of another degree course or examination.

The necessity to reference applies not only to text, but also to other media, such as computer code, illustrations, graphs, etc. It applies equally to published text drawn from books and journals, and to unpublished text, whether from lecture hand-outs, theses or other students' essays. You must also attribute text or other resources downloaded from websites.

Plagiarism advice for postgraduate research students can be found on the Library website at

https://www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/

Plagiarism Awareness Online Course
Imperial's Graduate School, in conjunction with the Library, has developed an online course designed to provide you with guidance and information about proper citation and attribution in writing. After completing the course, you should be able to explain what plagiarism is, be familiar with the concept of academic integrity, be able to explain how to avoid plagiarism and learn what the College's policy concerning plagiarism is.

https://www.imperial.ac.uk/study/pg/graduate-school/students/doctoral/professional-development/online-courses/

13.   Student Support

Oxford links

MPLS Division Postgraduate Research information (here you will find lots of useful information relating to the processes for DPhil students in Oxford):
https://www.mpls.ox.ac.uk/graduate-school/information-for-postgraduate-research-students

Welfare
Students are always welcome at any time to discuss their concerns with the CDT Director, Co-Directors, CDT Administrator, Academic Administrator and any other member of the department they feel comfortable with. Support is also available via College Advisors and College Offices.

Every graduate student at Oxford has a College Adviser, who is an academic member of his or her College, usually a Fellow. The role of the College Adviser is additional and complementary to that provided in the student's department or faculty. The College Adviser is not expected to perform the role of the Department Supervisor, or to be responsible for directing students' academic work. Rather, the intention is to provide a focal point for an individual student's relationship with the College, and general academic or pastoral advice and assistance throughout the student's course of study.

Other sources of advice and help include:

Student Counselling Service	http://www.ox.ac.uk/students/welfare/counselling/
Oxford University Student Union	https://www.oxfordsu.org/
Nightline	https://oxfordnightline.org/
Current information for students – health and welfare	https://www.ox.ac.uk/students/welfare

Harassment
The Departmental advisors on matters of harassment are:

Prof Christl Donnelly	Room 2.13	TEL	christl.donnelly@stats.ox.ac.uk
Ms Hannah Harrison	Room G.09	01865 282857	hannah.harrison@stats.ox.ac.uk
Dr Neil Laws	Room 1.04	01865 272597	laws@stats.ox.ac.uk

The University's *Policy on Harassment including Bullying* can be found at
https://edu.admin.ox.ac.uk/university-policy-on-harassment.

Disability
The Disability Co-ordinator is Jonathan Whyman:
email academic.administrator@stats.ox.ac.uk

The academic departmental Disability Lead is Dr Neil Laws (room 1.04), tel. x72597, email
laws@stats.ox.ac.uk.
For University guidance and support please refer to:
https://www.ox.ac.uk/students/welfare/disability/.

Childcare Services
Information on the University's childcare services can be found at
https://childcare.admin.ox.ac.uk/home#/

University policies

The University has a wide range of policies and regulations that apply to students. These are easily accessible though the A-Z of University regulations, codes of conduct and policies available on the Oxford Students website www.ox.ac.uk/students/academic/regulations/a-z**.**

These policies include:
Equal Opportunity Policy for Students: https://edu.admin.ox.ac.uk/equality-policy.
Code of conduct for using IT facilities   www.it.ox.ac.uk/rules/

Financial matters

- Information on fees and funding matters can be found at:
  https://www.ox.ac.uk/students/fees-funding.
- Information on the length of time given to pay your fees can be found at
  http://www.ox.ac.uk/students/fees-funding/fees/liability
- Information on continuation charges can be found here
  http://www.ox.ac.uk/students/fees-funding/fees/liability/graduate-continuation-charge

The Careers Service

The University Careers Service can be found at 56 Banbury Road with a website at http://www.careers.ox.ac.uk/**.** It is a free service for all Oxford University students including postgraduates, and for alumni. It provides one to one guidance, support and advice; information on occupations, vacancies and further study; feedback on CVs and application forms; and skills coaching for preparing for interviews and making applications.

The Careers Service also runs the University Internship Programme
http://www.careers.ox.ac.uk/internship-office-and-work-experience/the-internship-programme/.

University Language Centre

International students, whose first language is not English, are strongly advised to visit the University Language Centre to find out more about the courses on topics such as Academic Writing and Advanced Communication Skills which run during term time. These have a registration fee for graduate students. Details are available at http://www.lang.ox.ac.uk/courses/english.html **.**

Complaints and Appeals

Any complaint raised by a Student shall be dealt with by the Party against whom the complaint has been raised, according to the appropriate procedures: the Student complaints procedure at Oxford and the Procedure for Dealing with Complaints by Students at Imperial. Complaints relating to the overall programme will be dealt with jointly by Oxford and Imperial in accordance with Imperial's Procedure for Dealing with Complaints by Students.

https://www.ox.ac.uk/students/academic/complaints

Imperial links

The Student Space website is the central point for information on health and well-being
www.imperial.ac.uk/student-space

Student Counselling Service

At South Kensington, student counsellors are available to any student who would like to talk confidentially about any personal issue, e.g. study difficulties, loneliness, anxiety, depression, relationship issues, bereavement, sexuality.
There are both male and female counsellors. Telephone +44 (0)20 7594 9637 or email

counselling@imperial.ac.uk to arrange an appointment. If any problems do arise, consult someone as soon as possible.

Student Hub
The Student Hub, based on level 3 of the Sherfield Building, is the one stop shop for all key information and support that students need for everyday life at Imperial. All the student support departments are brought together here, so that you can get answers to your most frequent queries in one place, saving you from going all over the campus. http://www.imperial.ac.uk/student-hub/

International Office
The International Office at Imperial College London deals with all international issues, and all students from outside the UK. http://www.imperial.ac.uk/study/international-students/

Chaplaincy
The Chaplaincy Centre offers opportunities to explore experiences of faith and belief, and space to ask questions about identity and meaning and to engage with contemporary issues. The Chaplains on campus come from different Christian traditions and work with Hindu, Jewish, Muslim and Sikh Chaplains and Faith Advisors in London. Inspired by our own faith, we work respectfully with people with beliefs different from our own. http://www.imperial.ac.uk/chaplaincy/

English Language Support
The English Language Support Unit (ELSU) offers classes to students and members of Imperial College London who are not native speakers of English. Most of the sessions are free.
http://www.imperial.ac.uk/students/new-students/international-students/english-language-support/

Imperial College Study Guides
The Imperial Study Guide gives advice on developing the skills that you will need to help you through your degree. As well as giving information on different teaching and examination methods at Imperial, the Imperial Study Guide is packed with advice, lessons, activities and questions to motivate and encourage you to take control of your own learning.
http://www.imperial.ac.uk/students/success-guide/

Students with children
Imperial College Early Years Education Centre is based at Numbers 8 & 9 Prince's Gardens for children of staff and students. The provision caters for children aged from six months to five years. The Centre is organised into three age groups and is operating at capacity with one hundred and forty children. The popularity of the Centre is due to its excellent reputation, its convenient proximity to those working at South Kensington and its competitively priced fees.

Early Years | Staff | Imperial College London

Health
The College Health Service may be found at Southside, watt's Way, Prince's Gardens. Their telephone number is Ext. 4-9375. For emergencies call Ext. 4444 or 0207 589 1000. Students, local residents and visitors from overseas may all use the Health Service free of charge.

The Health Service is open from 8:30am to 6pm during term time, 8:30am to 5pm out of term (closed at lunch time from 12 till 1). Appointments may be made by calling the above number. More information is available on the College web site:
http://www.imperialcollegehealthcentre.co.uk/

Otherwise, there is an open clinic (appointments not necessary) from 8:30am to 10am, Monday to Friday. In addition to General Practitioners, an extensive range of services are offered, including free condoms, physiotherapy, acupuncture, herbal medicine, osteopathy, massage, psychotherapy, vaccinations and treatment for sports injuries.

Dental treatment is also provided at the Health Service. It is open from 9am to 6pm. Appointments are usually necessary (call 020 7589 6623 or Ext. 4-9396). It is generally necessary to pay for dental treatment,   although students and those on income support can obtain subsidies

Sports facilities
The College Sports Centre can be found at 7 Prince's Gardens. Details of facilities, opening time etc. can be found at: http://www.imperial.ac.uk/admin-services/ethos/

14.   Facilities

Please note that due to access and safety regulations around COVID-19, some facilities may not be available as described below. Appropriate signage will be put up to guide you.

Oxford links

Access to the Department of Statistics, Oxford, 24-29 St Giles'
The Department's building at 24-29 St Giles' is accessible by the University card 24 hours a day, 7 days a week including bank holidays; administrative staff are on duty from 8.30 am to 5.00 pm (Monday to Friday).

Care of Buildings
As there is no caretaker for the building, we ask all users of the building to help with security. Please leave doors secure and follow the security notices. Please report any building problems needing attention to building@stats.ox.ac.uk.

Recycling is encouraged. Paper, cardboard, drinks cans, food tins, plastic bottles and marked plastic items (recycling types 1,2,3,5 or 6) should be put in the green topped recycling bins. All recyclables must be empty or rinsed out. No food, liquid or glass should be put in the recycling bins.

Please avoid using the lift out of general office hours, if possible, for safety reasons.

Kitchen facilities
Facilities and provisions for making tea and coffee are on the ground, first, second and third floors. There is also a coffee machine in the ground floor kitchen. The fridges are kept stocked with milk, but otherwise are available for use for storage of small quantities of perishable food.   Please keep the kitchen and tea points tidy. Microwaves are also available in the ground floor kitchen.

Please do not take food or drink into the LG.01, LG.02 or LG.03 lecture and teaching rooms.

Post
Pigeonholes for receiving mail and notices on the ground floor are appropriately marked for department members and graduate students.

University Messenger Service collects and delivers mail for the departments and colleges of the University. Items can be left for collection in the tray in Reception.

Telephones
Currently all telephones in public areas have access for internal University use and 999 calls only.

Lost property
Items which have been found are lodged at Reception. Uncollected items are disposed of at the end of each term.

Emergencies, security and safety

Fire
Please read the blue fire-action notices posted in the buildings and familiarise yourself with the escape routes. If there is a fire emergency, immediately break the glass on the nearest fire alarm point and

then call both Security Services (89999) and the Fire Brigade ((9)999). Operate extinguishers only if this does not put you at risk and otherwise vacate the building immediately. On hearing the fire alarm ringing please leave the building immediately. **DO NOT** stop to pick up your belongings. The assembly point is on the corner of the Physics building in Keble Road.

Do not re-enter the building until told by someone in authority that it is safe to do so. Someone in authority means either the Head of Department, the Administrator, Deputy Administrator, or in their absence a fire officer.

Security:

Theft of personal items does occur from time to time. It is important to remain aware of this and help maintain the security of the buildings. Personal belongings should not be left unattended at any time.

The University Security Service can be reached by phone on 89999.

First Aid: lists of qualified First Aiders are posted on each floor and there is a First Aid Kit in the ground floor kitchen. Out of hours, please phone 89999 for first aid assistance. For an ambulance phone (9)999.

Fires, security alerts and serious accidents must be reported to the Administrator or Deputy Administrator and the scene of report must remain undisturbed.

Department of Statistics
University of Oxford
24-29 St Giles'
Oxford
OX1 3LB

Tel: +44 1865 272860 (Reception)
Departmental website: www.stats.ox.ac.uk/

Emergency telephone numbers (from any phone) are:
UNIVERSITY SECURITY SERVICES: 89999
FIRE BRIGADE, AMBULANCE SERVICE, POLICE: (9) 999

Imperial links

How to find us

Imperial College is located south of the Albert Hall in South Kensington. The nearest tube station is South Kensington and Gloucester Road on the District/Circle Line and High Street Kensington on the Circle Line. South Kensington and Gloucester Road are also on the Piccadilly Line which goes directly to Heathrow airport.

http://www.imperial.ac.uk/visit/campuses/south-kensington/

The StatML CDT hub

The StatML CDT hub is housed mainly on the 4th floor of the Central Library building (number 26 on the South Kensington Campus Map). The entrance to the EPSRC Centres for Doctoral Training is through level 2 of Sherfield building lobby.

The space is shared with the other EPSRC funded CDTs. The EPSRC CDTs Hub facilities comprise: three mixed seminar/teaching/meeting rooms, kitchen, support staff office (room 407) and office space for over 80 students.

The EPSRC Centres for Doctoral Training suite is located on the 4th floor of the ICSM building with **access via the SHERFIELD Level 2 Lift lobby.** Please note that there is no access to the space via the Central Library.

- - Route to lift/stairs to CDT space
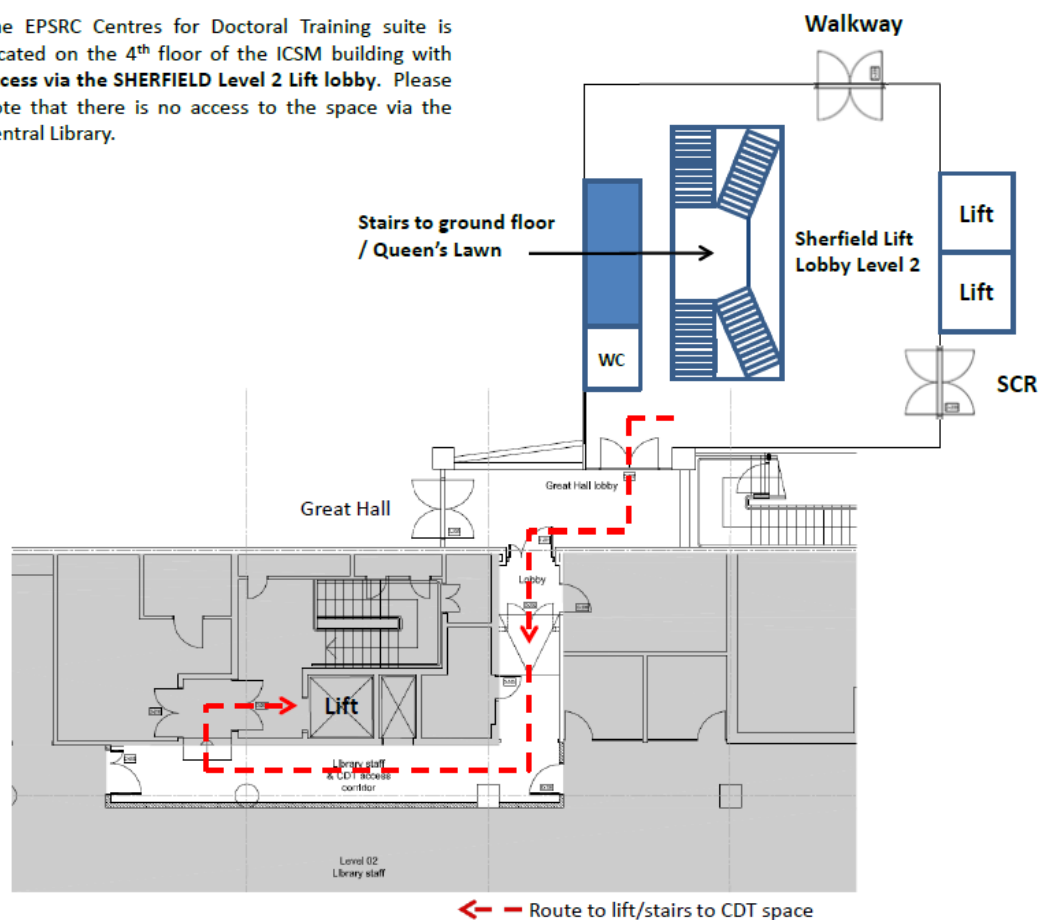
The Department of Mathematics

The Department of Mathematics at Imperial College London is an internationally renowned department within one of the world's most prestigious universities. The principal aim of the Department is to train professional mathematicians to pursue the study of scientific and technological problems by mathematical methods, and to undertake research in various branches of the subject, for which it has achieved outstanding results in the most recent government research assessment exercise. The Mathematics Department at Imperial is an internationally leading research school comprising over 90 academic staff, 54 postdoctoral fellows and 110 PhD students.

[Department of Mathematics | Faculty of Natural Sciences | Imperial College London](#)

All our Cohort are encouraged to participate in events and activities organised by the Department of Maths within Imperial. The Department issues its own handbook for Research Students which provides a wealth of information, some of which is included in this handbook for ease of reference. Copies will be available shortly.

Emergency Procedures

All emergencies
In an emergency, dial 4444 from any internal phone or 020 7589 1000. This line is supported 24 hours a day. State your exact location, your name and extension number. Security Control will immediately mobilise the required emergency services. **Do not ring 999**.

Fire
If you discover a fire, immediately press the nearest red alarm call point. Warn people in the vicinity. Evacuate the building and be ready to tell Security and Fire Officers where the fire is. The emergency evacuation alarm is a continuous siren. Leave the building immediately by means of the stairways. Do not attempt to tackle fires, chemical spillages or intruders yourself.

Building evacuation
Familiarise yourself with the various evacuation routes and use the nearest staircase. Do not always head for the main staircase regardless of where you are as this gets very congested. There are multiple fire evacuation signs throughout the building identified by a white arrow on a green background. From the main staircase the exit is to the Queens Tower (also the assembly point). In the event of a fire alarm all doors are automatically released from swipe card control and you will be able to access the corridors to the other stairwells. If the doors are not released automatically, press the green emergency exit button. Leave the building quickly. Never use the lifts. Do not return to collect personal belongings.

First aid
Local emergency help is provided by qualified first-aiders. The names and locations of First Aiders are listed on the Health and Safety notice boards and are normally available Monday to Friday between the hours of 9am and 5pm. If no local help is available, ring Security on 4444 as above.

Communication
The general College number is 020 7589 5111. The College operator may be obtained by dialling 0. Five-figure internal numbers may be dialled directly on the phone. All extension numbers prefixed with a 4 may be dialled directly by external callers using 020 7594 XXXX. Extension numbers prefixed with a 5 do not have the directly dialling facility. Use the "people" tab (top right next to the Search text box) on the College website to find telephone numbers and offices of the members of College. Microsoft Outlook also has contact details for the staff and the students.

Please check your email regularly as important information will be communicated to you this way.

Any mail for research students should be collected from the pigeonholes located in the Department of Mathematics (mail room, Huxley Building, level 6).

Please make sure that your contact details are kept up to date both on the:

Student portal : student portal
and
The College Directory: http://www.imperial.ac.uk/collegedirectory/

StatML INDICATIVE TIMETABLE 2022-2023

Lectures at Imperial will be in the EPSRC Centres for Doctoral Training Suite, Level 4 Sherfield Building, South Kensington Campus, London SW7 2AZ unless otherwise advised and lectures at Oxford will be in the Department of Statistics, 24-29 St Giles, Oxford OX1 3LB unless otherwise advised.

W/C	Ox Term	Monday	Tuesday	Wednesday	Thursday	Friday
26 Sept	MT-1		Kick-Off Camp will take place on 27-28 September, followed by the Jamboree on 29-30 September			
3 Oct	MT 0					Public Engagement Training Oxford am
10 Oct	MT 1	**Bayesian Modelling and Computation – Day 1**			**Bayesian Modelling and Computation – Day 2 - 1000 -1700**	
17 Oct	MT 2	**Bayesian Modelling and Computation – Day 3 1000 -1700**			**STATML DAY** • **Bayesian Modelling and Computation – Day 4 10.00 – 12.00 – C22** • Whiteboard talks 10-12 – C19,20,21 • Lunch break 30 mins 12.30 All • Research Seminar 1.00- 2.00 All • Coffee with speaker - All • Communications Skills training 2.30 to 4.30 – C22	Public Engagement Training Oxford pm
24 Oct	MT 3	**Statistical Machine Learning – Day 1 1000 – 1700**			**Statistical Machine Learning – Day 2 1000 – 1700**	

31 Oct	MT 4	**Statistical Machine Learning – Day 3 1000 – 1700**			**Statistical Machine Learning – Day 4 1000 – 1200** • Research Seminar - optional • Communications Skills Training	
7 Nov	MT 5	**Modern Statistical Theory – Day 1 1000 - 1700.**			**Modern Statistical Theory – Day 2 1000 - 1700**	
14 Nov	MT 6	**Modern Statistical Theory – Day 3 1000 – 1700**			**STATML DAY** • **Modern Statistical Theory – Day 4 1000 – 1200 C22** • Whiteboard talks 10-12 – C19,20,21 • Lunch break 30 mins 12.30 All • Research Seminar 1.00- 2.00 All • Coffee with speaker - All • Communications Skills training 2.30 to 4.30 – C22	
21 Nov	MT 7	Mini Project 1 begins			Data Processing with Python Pandas 1 – C22 Communications Skills Training	
28 Nov	MT 8	*Poss Optional Course*			Data Processing with Python Pandas 2 Communications Skills Training *Poss Optional Course*	End of term Oxford – does not impact on the following week's activities
5 Dec	MT9	*Poss Optional Course*			**STATML DAY** • *Poss Optional Course* • 10-12 Whiteboard talks C19-21 • Object Oriented Python 1 C22 • Communications skills training C22 • Research seminar - All • Industry talk - All • Christmas Party - All	

12 Dec						
9 Jan		Term 2 Imperial				
16 Jan	HT1	Term 2 Oxford *Poss Optional Course* Object Oriented Python 2 Communications skills training			*Poss Optional Course*	
23 Jan	HT2	Communications skills training Introduction to HPC *Poss Optional Course*				
30 Jan	HT3				**STATML DAY** • Whiteboard Talk - All • *Poss Optional Course* • Advanced Computational Training – PR – All - pm	Mini Project 1 submission
6 Feb	HT4	*Poss Optional Course*			*Poss Optional Course*	

13 Feb	HT5	*Poss Optional Course* Communications skills training Parallel Programmes on HPC Cluster Mini Project 2 begins			**STATML DAY** - Whiteboard Talk – All - *Poss Optional Course* - Research Seminar – All - Advanced Computational Training – PR – All - pm	
20 Feb	HT6	Good software Engineering Practice vs Code Communications skills training				
27 Feb	HT7	*Poss Optional Course*			*Poss Optional Course*	
6 Mar	HT8	*Poss optional course*			**STATML DAY** - Advanced Computational Training – PR – All - pm - Whiteboard Talk - All - *Poss Optional Course* - **Communications Skills - final Presentations - C22 [JJ not present]**	End of Term Oxford
13 Mar						
20 Mar						End of Term Imperial
27 Mar		Easter Break				
3 Apr						
10 Apr						
17 Apr						
24 Apr	TT1	Term 3 Oxford				Min Project 2 submission
1 May	TT2	BANK HOLIDAY Term 3 Imperial	Research Seminar Remote			

Date	TT					
8 May	TT3	*Poss Optional Course*			*Poss Optional Course*	
15 May	TT4	*Poss Optional Course*			**STATML DAY** • *Poss Optional Course* • Responsible Innovation	
22 May	TT5					PhD/DPhil title submission
29 May	TT6	BANK HOLIDAY	Research Seminar Remote			
5 Jun	TT7	*Poss Optional Course*			*Poss Optional Course*	
12 Jun	TT8	*Poss Optional Course*			**STATML DAY – IMPERIAL** • Responsible Innovation • *Poss Optional Course*	End of Term Oxford
19 Jun						
26 Jun						End of Term Imperial
Key Dates July			Great Exhibition Road Festival at Imperial			
			Bocconi Summer School			
			International Summer School, Missenden Abbey, Bucks - 23 to 28 July CONFIRMED			
Key dates September			Early-Stage Assessment IMPERIAL, submissions to be assessed during the second half of September LSR – 1 September			
			Kick Off Camp and Jamboree – to be confirmed			

Please note that this timetable is indicative and serves as a guide to inform you in what location training will be given. All students will have access to our Virtual Learning Environment '*Canvas*' where reading material, resources and timetables will be placed. Optional Courses will be added to the timetable once finalised.