UNIVERSITY OF OXFORD

Mathematical Institute

MSc in

Mathematics & Foundations of Computer Science

Handbook 2024-2025

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This handbook applies to students starting the MSc in Mathematics and the Foundations of Computer Science in Michaelmas term 2024. The information in this handbook may be different for students starting in other years.

The Examination Regulations relating to this course 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. If you have any concerns please contact mfocs@maths.ox.ac.uk.

The information in this handbook is accurate as at September 2024, however it may be necessary for changes to be made in certain circumstances, as explained at www.graduate.ox.ac.uk/coursechanges. If such changes are made the department will publish a new version of this handbook together with a list of the changes and students will be informed.

Version 1.0, July 2024

Welcome

The M.Sc. in Mathematics and the Foundations of Computer Science builds on Oxford's strengths in pure mathematics, logic, and theoretical computer science.

It benefits from the synergies and close relationships between the Mathematical Institute and the Department of Computer Science in Oxford. It offers training spanning these fields, and prepares students for two main tracks: Ph.D.-level research, or careers in the research-led IT and communications industries.

You will find the course challenging and quite intensive, but also stimulating and rewarding. You will also find that you are part of a cohort of highly motivated and enthusiastic students.

I hope that you will enjoy the course, and make the most of the opportunities it offers!

Paul Goldberg, Course Director

Please follow The Mathematical Institute on Linkedin at: https://www.linkedin.com/school/oxford-mathematics/

Contents

1. Introduction

This handbook contains important information about the MSc course in Mathematics and the Foundations of Computer Science. It is intended as a guide and reference for you throughout the course. There are a number of other sources of information that you will need to refer to during your course and links to these are given below, together with a list of key contacts.

1.1 Key Sources of Information

Course website: http://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mfocs.

The course calendar and the online course handbook can all be found here.

Mathematical Institute website: http://www.maths.ox.ac.uk/
Department of Computer Science website: http://www.cs.ox.ac.uk/

Examination Regulations: https://examregs.admin.ox.ac.uk/

The University's examination regulations govern all academic matters within the University and contain the general regulations for the conduct of University examinations, as well as specific regulations for each degree programme offered by the University.

Examination Conventions: The examination conventions for the course set out how each unit will be assessed and how the final degree classification will be derived from the marks obtained for the individual units. The examination conventions can be found online at http://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mfocs/information-current-students.

Oxford Student website: http://www.ox.ac.uk/students. This website provides access to information, services and resources.

University Student Handbook: https://www.ox.ac.uk/students/academic/student-handbook. This contains general information and guidance about studying at the University of Oxford, and gives you formal notification and explanation of the University's codes, regulations, policies and procedures.

College Handbook: The handbook for your college will be available on the college website.

1.2 Key Contacts

Course Director: Prof. Paul Goldberg paul.goldberg@cs.ox.ac.uk (Michaelmas 2024)
Prof. Oliver Riordan oliver.riordan@maths.ox.ac.uk (from Hilary 2025 onwards)

MSc Course Administrators: Laura Auger mfocs@maths.ox.ac.uk (exams and assessments)
Helena Gardner mfocs@maths.ox.ac.uk (on-course)

Deputy Head of Academic Administration – Maths: graduate.studies@maths.ox.ac.uk

Head of Academic Administration – Maths: acadadmin@maths.ox.ac.uk

Academic Administrator - Computer Science: Rachel Breward, rachel.breward@cs.ox.ac.uk

Mathematical Institute Reception (tel: (2)73525)

Department of Computer Science Reception (tel: (2)73838)

As a graduate student you will have access to an MS Teams account. MS Teams and emails are the most common means of communication between students and staff.

1.3 The Academic Year

The course lasts three terms and each term lasts eight weeks, from the beginning of October to the end of the following June. The University functions throughout the year and as a graduate student you will need to work in vacation as well as in term time (apart from reasonable breaks).

Note in particular that you should expect to remain in Oxford after the end of each term to work on mini projects or your dissertation, and also that you should return before the beginning of each term to discuss your programme with your supervisor, and for meeting the Course Director.

For the academic year 2024-2025, the course begins with an induction. The dates of the University Full Terms for the Academic Year 2024-2025 are:

MT = Michaelmas Term 2024: Sunday 13 October – Saturday 7 December
HT = Hilary Term 2025: Sunday 19 January – Saturday 15 March
TT = Trinity Term 2025: Sunday 27 April – Saturday 21 June

A calendar of important dates is given in Appendix A.

1.4 Finding Your Way Around

Teaching for the course will take place in the Andrew Wiles Building, The Mathematical Institute, situated in the Radcliffe Observatory Quarter (http://www.maths.ox.ac.uk/about-us/travel-maps) and the Wolfson Building, Department of Computer Science (http://www.cs.ox.ac.uk/aboutus/contact.html).

A searchable, interactive map of all colleges, departments and libraries can be found at https://www.ox.ac.uk/visitors/map.

Access to the Wolfson Building

The Department of Computer Science is situated in the Wolfson Building, on the corner of Keble Road and Parks Road, with the main entrance on Parks Road. To access this building, you will need to have your University card activated. Please contact reception@cs.ox.ac.uk at the Department of Computer Science to arrange this.

Access to the Andrew Wiles Building

An entry card system controls access to the building. Your University card, which you collect from your College at the beginning of term, will gain you access to the building and will operate the doors where they have security control. Instructions on how to activate your card will be made available to you at the Graduate induction. If your card fails to allow you access, please contact door-entry@maths.ox.ac.uk giving your name, card number and expiry date.

Rules governing access to the Mathematical Institute are as follows:

1. Cards are issued on a personal basis and must not be loaned or passed on to another person.
2. No-one should allow access to another person.
3. When a card is used to gain access to the building, the system keeps a record of that use for a period of approximately six months.

2. The MSc Course

2.1 Overview

The 12-month Master of Science in Mathematics and the Foundations of Computer Science course (FHEQ Level 7) focuses on the interface between pure mathematics and theoretical computer science. The course is suitable for those who wish to pursue research in pure mathematics (especially algebra, number theory, combinatorics, general topology and their computational aspects), mathematical logic, or theoretical computer science. It is also suitable for students wishing to enter industry with an understanding of mathematical and logical design and concurrency.

It builds on Oxford's traditional strength in the foundations of theoretical computer science and in the related areas of mathematics that stem from the early days of the Programming Research Group in the Computing Laboratory.

2.2 Aims

The aim of this MSc is to provide a wide grounding over a range of mathematics and computing science and the regulations are designed to ensure that this is achieved without too much specialisation, while giving students a good choice of options.

2.3 Learning Outcomes

During the course you will develop a knowledge and understanding of:

- several topics in advanced mathematics and theoretical computer science
- some significant applications of modern mathematical and computational methods.
- a general perspective on mathematics and the foundations of computer science as active areas of research.

You will also have the opportunity to develop the following skills:

Intellectual Skills

- A working knowledge of high-level mathematical methods and their applications.
- The ability to develop mathematical ideas and investigations in an open-ended fashion.

Practical Skills

- Ability to apply abstract mathematical concepts to substantial specific examples.
- Ability to construct, write-up and communicate logical arguments of some complexity.

Transferable Skills

- Ability to solve problems effectively and to apply high-level mathematical and computational methods to a wide range of problems.
- Ability to manage your time and to acquire a complex body of knowledge in a limited time.
- Ability to manage your own learning and study for research or other professional qualifications.

2.4 Course Structure

The mathematical side of the course concentrates on areas where computers are used, or which are relevant to computer science, namely algebra, general topology, number theory, combinatorics and logic. Examples from the computing side include computational complexity, concurrency, and quantum computing.

The course will consist of examined lecture courses and a written dissertation. The lecture courses will be divided into two sections:

- **Schedule I – Basic Courses**
  The lectures may serve also as advanced undergraduate lectures, though students for an MSc should expect to read more widely around the material than would an undergraduate, and the written assignments set at the end of the course will be more searching than undergraduate examination questions, and will often allow the student to develop a theme.
- **Schedule II – Advanced Courses**
  These courses can be expected to lead into areas where students may choose to write dissertations. Some Schedule II courses will be offered as directed reading, rather than by lectures. Their content will be the equivalent of a standard course of sixteen lectures.

It is intended that a major feature of this course is that candidates should show a broad knowledge and understanding over a wide range of material. Consequently, each lecture course taken will receive an assessment upon its completion by means of mini projects. Candidates will be required to pass five courses, of which at least two shall be from Schedule II. Details regarding the syllabus for each course are published online. Candidates must offer at least four courses from among those available in Michaelmas and Hilary Terms.

While it is necessary to pass five courses, and not more than four may be offered in any one term, the normal expectation is that students will take three or perhaps four courses in each of Michaelmas and Hilary terms. It should be noted that Schedule I courses will mainly be given in Michaelmas and Hilary terms, and Schedule II courses in Hilary and Trinity terms. Many courses provide problem sheets and associated classes; completion of such work (and its marking) forms an integral part of the course, and students are expected to enroll in and attend such classes.

Where this is not the case, either the lecturer or the supervisor (see below) will arrange a limited amount of 'tutorial-style' teaching to supplement lectures. (See also 'Reading Courses', section 3.5)

The Geometric Deep Learning and Graph Representation Learning courses will have a practical assessment assigned to them and attendance to these practicals will be compulsory for all students taking these courses. While the marks for these practicals will not contribute towards the final mark for the mini-projects, attendance at these practicals will

be marked, and a pass/fail line will appear on the transcript of students taking these courses. More information is given in 'Practicals', section 3.4.

For the 2024-25 academic year, candidates may, with the permission of the course lecturer and the MFoCS Course Director, substitute no more than one of the five required written assignments with an appropriate course of study from outside the published list (Approved Subject), which need not be examined by written assignment - i.e. permission may be requested to take a course assessed by examination, in place of one mini-project.

The majority of these courses will be given in the first two terms. During Trinity term and over the summer students should complete a dissertation on an agreed topic. During Trinity Term you should be focusing primarily on your dissertation, and are unlikely to have time to take more than one course for examination.

All students will be required to attend an oral examination. This will be held in the second half of September.

3. Teaching and Learning

3.1 Organisation of Teaching

Teaching for the course will be provided jointly by the Department of Computer Science and the Mathematical Institute through lectures and classes. All students are assigned a general supervisor (responsible for guiding the student's choices) for the duration of the course. Supervisors are chosen from amongst those with an interest in the programme and with the student's interests considered. In addition, students undertaking a dissertation will have regular supervision meetings with their dissertation supervisor.

Course Material

Course material, such as lecture notes and problem sheets, will be published on the Mathematical Institute's website and the Department of Computer Science website.

Mathematical Institute: https://courses.maths.ox.ac.uk/course/index.php?categoryid=849

Computer Science: http://www.cs.ox.ac.uk/teaching/courses/

3.2 Lectures

Each lecture course comprises of 16 hours of lectures, and for most of these there will be 4x 90-minute classes.

In addition, students will be expected to undertake reading, and work on practical preparation and problem sheets. We would expect that you would spend about 10-15 hours per week on each course and that you would undertake 3 or 4 courses in each of Michaelmas and Hilary Terms. Reading courses involve the same amount of work as lecture courses.

The Mathematical Institute publishes a lecture list for Mathematical Sciences just before the beginning of each term, as do all other Divisions of the University. The Mathematics list can be found on the web at http://www.maths.ox.ac.uk/members/students/lecture-lists.

The Computer Science list can be found on the web at http://www.cs.ox.ac.uk/teaching/timetables/.

Lecture lists for other Departments in the MPLS Division can be found at https://www.ox.ac.uk/students/academic/guidance/lectures. All members of the University may attend any publicly announced University lectures or seminars.

3.3 Classes

Lecture courses will normally be accompanied by problem sets and weekly or fortnightly problem classes. Classes will usually contain 8–10 students. For classes accompanying mathematics courses you will need to sign up for the sets of classes you wish to attend at the start of each term. You will be sent an email in week 0 alerting you that class registration is open and providing you with details of the registration process. You can find out which class you have been allocated to by looking at the class lists on the specific course pages on Moodle.

Before each class you will need to submit your problem sheet to the class teaching assistant for marking. For all courses you should submit your problems sheets as instructed by the class tutor.

You should always submit your problem sheet before the stated deadline.

Please note that some classes will be joint with undergraduates. As an MFoCS student you should try to attend even week classes where possible, to fit around mini projects.

3.4 Practicals

3.4.1 Practical Sessions

The purpose of practical exercises for the Computer Science courses is to help you make sure you understand the application to practical programming of the theory that is taught in lectures. You will find more information about how to sign up for practicals (signing up, signing off and submission of reports, assessment) in the Courses section of the website of the Department of Computer Science
https://www.cs.ox.ac.uk/teaching/courses/2024-2025/practicals/.

Please note that where a course has classes and practical sessions, students are expected to attend both.

Classes are interactive problem-solving sessions for smaller groups of students that normally last about an hour. Problems for the classes are set by the lecturer of each course. Your work on these exercises must be handed in by the required deadline for assessment by the person running the classes for that subject. Model solutions will be provided to all students after the class has taken place. Each class has a marker and a tutor. The marks from the tutorial exercises will be made available to your general supervisor for information. The timetable for these classes (and the associated deadlines) will be published on the Minerva database.
Courses with practicals normally have 4-6 classes; courses without practicals normally have 6-7 classes.

3.4.2 Timetable

Practicals will usually start in week 3 of the term and there are normally four to six 2-hour sessions for each course during the term. During the first 2 weeks of the term you will be required to sign-up for a practical group. Most courses have 2 groups at different times in the week; you should choose the session that fits best with your timetable. Sign-up is done online using the Minerva database; you will be informed through the termly notices of how to sign up for classes and practicals. Sign up is on a first-come-first-served basis: there is a limit to the number of students in any group, which may mean you don't get your first choice of group.

There will usually be a number of exercises that you will need to complete for each course. You might also need to work on the practicals in your own time, outside the scheduled practical sessions.

3.4.3 Attendance

Because we want to make sure that you'll get all the guidance you need, and progress well, attendance at practical sessions is compulsory until you have completed the practical. The demonstrators will keep a record of your presence and update attendance and practical completion details on Moodle.

If you are unable to attend a practical session, for example because of illness, you should inform the demonstrator in charge, if possible before each session. You can find information on how to contact them on Minerva.

3.4.4 Writing Practical Reports

Each practical requires a report to be submitted for assessment. The report should not be a major burden: it is simply to provide evidence that you have done the work properly. Practical exercises usually give specific instructions as to what should be included in the practical report. In any case the following guidelines should be followed.

In many practicals, most of the report will be in the form of a program. Of course, you are expected to follow good programming practice:

- In a multi-module program, you should include some text explaining the role of each module, and the relationship between them;
- You should include suitable comments explaining the purpose of variables and procedures;
- You should also include comments to explain any interesting algorithms you have used: writing down an invariant will often help;
- You should make the code easy to read, for example by following standard indentation conventions, and by suitable use of white space;
- You should also include some evidence that the program works, for example by including sample output or screen shots: testing is a very important programming skill, and so you should show that you have considered suitable tests.

Many practicals will include specific questions for you to answer. Make your answers concise and relevant.

If the aim of the practical is to produce some experimental results, then you should present and discuss those. Do not just include pages and pages of numbers spewed out by the program. A concise summary is better, perhaps using another program to show the results are correct (by making a graph, say).

Try to avoid reproducing large volumes of code from the practical materials or repeating program code that you have already listed in the report. If a second program has to include the same procedure definition (say), just write "Procedure Sort(x) defined as before."

You are encouraged to write up reports on practicals as you do them during the term. The demonstrators will happily look at your reports and give you advice about them at the practical sessions. It is perfectly acceptable to have your report marked at one practical session, then do further work on the practical and submit an improved report by the deadline.

You may want to produce the report using a text formatter like TeX or LaTeX, or a word processor. Be careful that the time you spend in formatting the document prettily does not distract you from getting the content right. A cogent, concise, neatly hand-written report is preferred to pages of word-processed verbiage. If you do produce a typed report, please ensure that it is legible, with adequate margins and with type that is no smaller than 10 points. While working on your practical, keep a record of the tests you performed on your program, so that you can easily copy relevant data into your report.

Do not copy any other person's practical report. You may have general discussions with other students about the practicals, but the code, test data and report must be all your own work.

3.4.5 Signing off Practicals

In order to have the demonstrator record that you have completed the practical, you must show them that you have done the work, perhaps by demonstrating a working program.

3.4.6 Assessment of Practicals

When you have completed the work for a practical and the report on it, a demonstrator will check and mark your work at a practical session. They will ask you first to show that you have done the work, leaving aside any optional parts, and will record this fact in their register, together with your attendance at practical sessions. If a practical turns out to be very long or difficult, the demonstrators (with the advice of the course lecturer) may record the practical as complete if you have done a reasonable amount of work, even if you have not finished it.

The demonstrator will also mark your report, either at the practical session if there is time, or by taking it away and returning it later. The practical report will be marked, taking into account whether you have done any optional parts, as well as the quality of your write-up, and the general difficulty of the practical exercises. As a general guide, even an incomplete report on each practical in the course gains more credit than one where some practicals are entirely missing. Extra credit is awarded for completing optional parts of practicals, but not to such an extent that it is worth spending many hours finishing every optional part.

The following scale of marks is used by the markers; the descriptions attached to each mark indicate the rough level of performance expected, but may be adjusted to take into account the degree of difficulty of the practical exercise.

S+ The student has either completed the compulsory parts of the exercise and submitted an exemplary report, or completed all parts of the exercise and submitted an adequate report.

S The student has completed the compulsory parts of the exercise and submitted an adequate report.

S- The student has completed only part of the exercise, or has submitted an inferior report.

Practicals are assessed in two ways: first, the demonstrators keep a record of who has attended the practical classes and completed each practical exercise associated with a lecture course; and second, you write a practical report that the demonstrators mark, and which you submit to the examiners.

In examinations, the marks for practicals are treated separately from those for written papers. Practical marks do not affect the class of degree that you will be awarded, but the outcome will be listed on your official transcript.

All the practical reports must be submitted to the examiners at the end of the year. **You must submit them to the Examiners, online via Inspera, by 12 noon on Friday of Week 5 of Trinity Term;** full details will be given nearer to that date. Note that reports should be anonymous: they should contain your candidate number, but not your name.

3.4.7 Late Practicals

Practicals are intended to support the lectures and class work on a course, to help to impress material on your understanding, and to connect theory with practice. Accordingly, it is very much better to be doing the practicals for a lecture course at the same time as the other work on that course. Deadlines are set to help you to resist the temptation of putting off practicals.

Another advantage of doing your practicals during the scheduled sessions is that the demonstrators are often able to spot problems that are affecting several people and do something about them, perhaps clarifying the instructions or providing a piece of missing information. If you do not attend the practical sessions, you will not have access to this help.

The Examiners will not take into account practical reports unless they have been "signed by a demonstrator". The Examiners will give you no credit for practical work that was not submitted for marking by the deadline and signed by a demonstrator, unless there are extenuating circumstances. Likewise, demonstrators will not mark work that is late, unless there are extenuating circumstances.

3.4.8 Difficulties

If you are having difficulties in your practicals please make sure you speak to your general supervisor or a member of the Academic Admin Team as soon as possible.

3.5 Reading Courses

Some courses may be offered by means of directed reading rather than as a formal course of lectures - such courses are of exactly the same standing as those delivered via lectures. The following notes, both for students and those giving the course, give a general outline of what should be expected.

1. The content of a Reading Course should, in quantity and expectation, correspond to a standard 16 lecture course given at the Schedule II level.
2. There should be a synopsis that states the aims and content of the course, together with the reading that will specify its content (but see (4) below).
3. The reading is guided - that is, the person offering the course should meet with the students on a regular basis to discuss the material being read and to give clear guidance as to what should be achieved before the next meeting.

   The exact format should be decided on a mutual basis. In practice, most people giving such courses will see all the students at the same time, on between four and eight occasions (either four 2-hour or eight 1-hour meetings).

   The majority of the time will be spent reviewing what has been read, and it is for the “lecturer” to see whether this is best spent by students presenting items, by reviewing the content briefly and answering questions as the lecturer goes alone, or by asking the students what particular aspects they may want explained. It is useful to conclude by discussing what is in the next “section” to be covered, with advice as to where problems may be expected or where suitable additional reading may be found. The first meeting, of course, should include a general outline of the goals of the course since at that stage some students may still be deciding whether to take the course.
4. It is permissible (i.e., without referring back to the Supervisory Committee) to vary the content of the course to reflect the interests of those taking the course, though all students should cover the same material for the purposes of preparing for the mini project - but “extra” reading may be assigned on an individual basis according to taste. This is particularly relevant when students may be looking for a dissertation in the area of the reading course. Many dissertations do in fact arise from reading courses.

5. If relevant and viable (especially with a view to the fact that a mini project will be set), problems or practical exercises may be set. The latter should, of course, be designed with the students' prior computing experience taken into account.

6. On occasion, extra reading courses may be approved by the Supervisory Committee during the year upon request. Students seeking such extra courses should discuss this with their supervisor, and also informally with the Chair prior to any formal request.

3.6 Advice on Teaching and Learning Matters

There are a number of people you can consult for advice on teaching and learning matters. Each student is assigned a supervisor who will offer direct guidance in the first instance. In particular, students are advised to discuss with their supervisors at an early stage which range of courses they intend to consider so that any prerequisite knowledge can be acquired. They should also discuss with their supervisors later the area in which they intend to write the dissertation so that a suitable supervisor for that dissertation (who need not be the 'assigned' supervisor) can be approached to discuss possible topics. Students give a short presentation on their dissertation topic late in Trinity Term or shortly thereafter. All students are expected to observe all presentations offered by their cohort. The dissertation is required to bear regard to some aspect of the material covered in lecture courses. All students will receive academic guidance from the Course Director.

If you have any issues with teaching or supervision please raise these as soon as possible so that they can be addressed promptly. Details of who to contact are provided in Section 8.2 Complaints and Appeals.

The committee who oversee the course currently consists of Prof. Paul Goldberg (Chair, MT24 only), Prof. Oliver Riordan (Chair from HT onwards), Prof. Kevin McGerty, Prof. Udi Hrushovski, Prof. Varun Kanade (HT25 onward), Prof. Michael Benedikt, Prof. Aleks Kissinger, Prof. Ivan Tomasic (External member), a Student Representative and Prof. Christoph Reisinger (DGS-Taught). Any member of the committee may be approached for guidance. (N.B. The committee membership may change from the beginning of the academic year. You will be informed if this is the case).

3.7 Skills and Learning Development

Expectations of Study

You are responsible for your own academic progress. Therefore, in addition to the formal teaching you receive through lectures, classes and dissertation tutorials, you will be expected to undertake a significant amount of self-directed, independent study both during term time and in the vacations. You are advised to read the University's guidance on undertaking paid work at http://www.ox.ac.uk/students/life/experience.

Your academic progress will be monitored by your supervisor. College tutors and supervisors will receive reports from the class tutors for the classes you attend. In addition, supervisors of MSc students will submit termly reports on their student's progress via the Graduate Supervision Recording (GSR). These reports are reviewed by the Director of Studies. If you are concerned about your academic progress please contact your college tutor, supervisor or the Course Director.

For MSc students, it is also mandatory to complete a self-assessment report via GSR for every reporting period. You can access GSR via the following link: https://www.ox.ac.uk/students/selfservice. Students will be sent a GSR automated email notification with details of how to log in at the start of each reporting window, and who to contact with queries.
Completing the self-assessment will provide the opportunity to:

- Review and comment on your academic progress during the current reporting period

- Measure your progress against the timetable and requirements of your programme of study
- Identify skills developed and training undertaken or required
- List your engagement with the academic community
- Raise concerns or issues regarding your academic progress to your general supervisor
- Outline your plans for the next term (where applicable)

If you have any difficulty completing this you must speak to your general supervisor or Director of Studies. Your self-assessment report will be used by your general supervisor as a basis to complete a report on your performance this reporting period, for identifying areas where further work may be required, and for reviewing your progress against agreed timetables and plans for the term ahead. GSR will alert you by email when your General supervisor has completed your report and it is available for you to view.

University Lectures and Departmental Seminars

University lectures in all subjects are open to all students. A consolidated lecture list is available on the University website at: http://www.ox.ac.uk/students/academic/lectures/.
Seminars and colloquia given in the Mathematical Institute and Computer Science Department, often by mathematicians and computer scientists of international repute, are announced on the departmental notice boards
www.maths.ox.ac.uk/events/list/all
www.cs.ox.ac.uk/seminarsEvents.html

Study Skills

Much of the advice and training in study skills will come in the regular class teaching you receive. A wide range of information and training materials are available to help you develop your academic skills – including time management, research and library skills, referencing, revision skill and academic writing – through the Oxford Student website: http://www.ox.ac.uk/students/academic/guidance/skills

4 Examinations and Assessments

4.1 Assessment of the Course

All of the units you undertake will have a formal assessment (either a mini project or dissertation for all core elements of the course). The assessments are governed by the University's Examination Regulations and the course examination conventions. You will be asked to notify the course administrator of your intention to offer a mini project for a lecture course no later than the Monday of the third week of each term. This is distinct from the formal exam entry process detailed below.

Where an approved subject is assessed by written examination, you will be required to abide by the University's regulations on conduct for written examinations. Practical information and support for sitting in-person exams is provided on the Oxford students website (http://www.ox.ac.uk/students/academic/exams/guidance). All the written examinations will take place at Examination Schools where there are dedicated exam rooms. Examination Schools is on the High Street and its location can be found on the map available at https://www.accessguide.ox.ac.uk/examination-schools.

Since the written examinations are at Examination Schools, you will be required to wear academic dress and sub fusc. You will also need your University card. If you wish to take water into the exam room this will need to be in a clear, spill-proof bottle with a sports cap. Calculators will not be allowed in the examinations but nor will they be necessary. More information about sitting an in-person examination can be found at https://www.ox.ac.uk/students/academic/exams/in-person-exams. Information on (a) the standards of conduct expected in examinations and (b) what to do if you would like examiners to be aware of any factors that may have affect your performance before or during an examination (such as illness, accident or bereavement) is available on the Oxford Students website https://www.ox.ac.uk/students/academic/exams/guidance.

4.2 Examination Conventions

The examination conventions for the course are the formal record of the specific assessment standards for the course. They set out how each unit will be assessed and how the final degree classification will be derived from the marks obtained for the individual units. They include information on marking scales, marking and classification criteria, scaling of marks, formative feedback, resits and penalties for late submission. The examination conventions for 2024-25 can be found online at http://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mfocs/information-current-students . This is not the definitive version of the examination conventions for this year. They will be made definitive, once approved at the first supervisory committee meeting in Michaelmas Term. The examiners for the current academic year are listed in the Conventions. Students are strictly prohibited from contacting external examiners directly. If you are unhappy with an aspect of your assessment you may make a complaint or appeal (see section 8.2).

4.3 Examination Entries

You will need to formally enter for the units you wish to be examined on by completing an examination entry form. This is done online through Student Self Service (https://evision.ox.ac.uk/) and further information on the process can be found at https://academic.admin.ox.ac.uk/exams-and-assessments. For this course there will be three examination entry dates:

Thursday 7th November (week 4 of Michaelmas Term) for Michaelmas Term courses to be assessed by mini projects, or approved subjects assessed by other method in Hilary Term or the Christmas Vacation;
Thursday 13th February (week 4 of Hilary Term) for Hilary Term courses to be assessed by mini projects, or approved subjects assessed by other method in Trinity Term or the Easter Vacation;
Thursday 15th of May (week 3 of Trinity Term) for Trinity Term courses to be assessed by mini projects.

There is also an opportunity for a candidate to formally withdraw an examination entry via their College academic office prior to the submission deadline. Although students can withdraw at any time before the submission deadline we would strongly recommend you withdraw at least 24 hours before the deadline.

4.4 Submission Deadlines

The calendar of important dates (Appendix A) gives the expected submission deadlines for the mini projects, dissertation and viva examinations.

It is vital that you submit your work by the given deadline as any late submission will be reported to the Proctors and the following penalties will apply:

Lateness of submission	Penalty (USMs)
Up to 4 hours	1
4–24 hours	10
24–48 hours	20
48–72 hours	30
72 hours - 14 days	35
More than 14 days late	Fail

Please see the examination conventions and the Oxford Student website (http://www.ox.ac.uk/students/academic/exams/submission) for advice on what to do if you are unable to submit your work on time due to medical emergency or other urgent cause. If you are granted an extension, please be aware that this will likely result in delaying your results.

4.5 Preparation and submission of Coursework

4.5.1 Mini Projects

It is generally recommended that mini projects be typeset (using LaTeX or a similar system), and for some courses typeset mini projects will be required. However, recognising that these have to be written within a fairly short period of time, some courses may allow hand written mini projects. In this case it is important that they be both legible and laid out in the same way as if they were typed.

It should be borne in mind that these are projects, not "examination solutions", and the presentation should reflect this:

1. Your submission should be clearly written in sentences with appropriate punctuation, display of formulae, appropriate use of 'Definition', 'Lemma', 'Theorem', 'Proof', etc.
2. You should begin with a brief statement of the overall goal of the project, and finish with a conclusion of what you have achieved (or needed to assume) and comment on what other questions your work might lead to.
3. You must not write your name on your mini project; the only identification should be your candidate number.
4. It is impossible to give precise guidance on length since this can vary considerably from project to project, depending on how much calculation may be needed and whether such is routine. It is unlikely, however, that a project can be completed in less than five pages, and it will more often be in the 10 - 15 page range. What is more important is that it should reflect the fact that you will be concentrating over a 2 - 3 week period on writing three or four projects and should represent a commensurate amount of work, bearing in mind that some reading may be required as part of the process (e.g., some projects may involve showing your understanding by extending a known result that you may not have seen before).
5. Mini projects may assume knowledge of the classes, please be aware that if you do not attend the classes you may be unable to complete a mini project on the topic.

If you have any questions about the mini projects (e.g., requests for clarification), please email the MSc Course Administrator (mfocs@maths.ox.ac.uk). **These will be passed as appropriate to the relevant Assessor and/or the Chair of Examiners. Any replies will be sent to all students taking that mini project. You must not communicate directly with the Assessor, nor discuss the projects with each other.**

Please note that formal assessments are marked but unfortunately, we are **not** able to guarantee very detailed feedback.

4.5.2 Dissertations

These **must** be typed and the preferred length is between 35 to 65 pages. Dissertations may be printed double sided. It is recommended (though not obligatory) that LaTeX be used. You are advised to become familiar with this during the year if you are not already fully conversant with another word processing package that can handle mathematical formulae (and diagrams).

The typing should follow the guidance for research theses (see Examination Regulations). The work should be properly and adequately referenced in the text, with the full list of references at the end of the dissertation, following any of the standard labelling conventions as mathematical papers (e.g., numerical, or by abbreviated name).

The dissertation does not require a separate abstract. However, it is strongly recommended that a short abstract (of less than one page) be included at the beginning of the dissertation, separate from the Introduction. It is important to highlight what new areas you are contributing within this abstract. The abstract may, but need not, be that submitted to the Chair of the Supervisory Committee for prior approval (though these will have been made available to the Chair of Examiners along with the title of the dissertation).

4.5.3 Submission of coursework

The deadline for submission of the dissertation is 4th of September (Trinity Term) at 12:00 noon in the year of the examination.
Candidates must submit their mini projects and dissertations electronically via Inspera by 12 noon on the day of the submission deadline using the following link: https://oxford.inspera.com.
Information on the procedure for this will be issued in the form of a notice to candidates from the chair of examiners. You must ensure you are familiar with the online submission process in advance of any deadline.

Full information is provided on the Oxford students website
https://www.ox.ac.uk/students/academic/exams/submission

4.6 Plagiarism

The University defines plagiarism as follows: presenting work or ideas from another source as your own, with or without consent of the original author, by incorporating it into your work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition, as is the use of material generated wholly or in part through use of artificial intelligence (save when use of AI for assessment has received prior authorisation e.g. as a reasonable adjustment for a student's disability). Plagiarism can also include re-using your own work without citation. Under the regulations for examinations, intentional or reckless plagiarism is a disciplinary offence.

Where the Chair finds that the matter can be dealt with by the Exam Board, assessors will mark the work on its academic merits. The Board may deduct marks for derivative or poorly referenced work. Boards are free to operate marks deductions of between 1 and 10% (maximum) of the marks available for that particular piece of work. Where the consequence of the marks deduction would result in failure of the assessment and of the programme (i.e. no resit opportunity) the case must be referred to the Proctors.

Please see the University's guidance on plagiarism
http://www.ox.ac.uk/students/academic/guidance/skills/plagiarism for further information.

4.7 Viva Examination

All students shall give an oral examination on their dissertation and its background material, and you will be expected to give a short 10-15 minute presentation on the dissertation, after which there will be an opportunity for the Examiners to ask questions. You are not permitted to use presentation slides although use of a whiteboard is permitted. You must wear sub-fusc and are advised to take a copy of your dissertation with you to your oral examination. Students are permitted one A4 sheet of notes in the viva.
You are also expected to give a short presentation on your dissertation topic, late in Trinity Term or shortly thereafter. All students are expected to observe all presentations offered by their cohort. Slides are permitted.

4.8 Key Assessment Links

Examination Regulations: https://examregs.admin.ox.ac.uk/

Examination Timetables: http://www.ox.ac.uk/students/academic/exams/timetables

Online Submission: https://oxford.inspera.com/

Internal Examiners' Reports:
https://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mfocs/quick-links/mfocs-internal-examiners-reports

External Examiners' Reports:
https://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mfocs/quick-links/mfocs-external-examiners-reports

5. Role of the Supervisors

5.1 "General" supervisor

In assigning general supervisors, your background and indicated interests have been taken into account.

Your general supervisor will be responsible for guiding you through the course. You should see him/her almost as soon as you arrive, and in particular in the week before teaching starts, to discuss the range of courses that you propose to take. There is no need to know exactly at this stage but it is important to discuss your background in mathematics and/or computer science so that your supervisor can assess whether taking particular courses is realistic, and whether you are taking a sufficiently coherent set of courses (especially in the first term) to ensure a passage through the remainder of the year.

Your supervisor will also be able to give you guidance on material that they think is appropriate for you to study by yourself to prepare you for courses that you want to take, either by reading, or by attending undergraduate lecture courses that do not feature within the MFoCS list of courses. (This is especially true of courses given in Hilary term for which you may lack some of the prerequisites.)

More generally, you should keep in contact with your supervisor, and in particular let him/her know exactly which courses you finally decide to take for assessment. He/she is also the person who can give you general guidance.

During the second term in January, you should expect to have a preliminary discussion of the general area in which you will be hoping to write your dissertation. Often you will find that the most appropriate person to talk to after that is the person who has given lectures in that area, but your supervisor may well suggest that there are others to whom you should talk.

At this time too, your supervisor will provide you with some feedback on your performance in the mini projects on the previous term's courses, and will be the person who formally reports on your work to the Director of Graduate Studies for Taught Degrees and to your college.

Your general supervisor is also responsible for ensuring that you find a dissertation supervisor. This may seem a hard task, but in practice there has rarely been any difficulty at this stage. While then you will be working with your dissertation supervisor (primarily during Trinity term), your general supervisor will still be the person with overall responsibility for you, as before.

Those acting as general supervisors are experienced in the MFoCS programme and it is not necessary that they be experts in the particular direction that you plan to take; it may turn out that they will also be your dissertation supervisor, but this is most often not the case.

Your supervisor may not help you with your mini projects as such. However, he/she may answer general questions by directing you to appropriate reference material, but not to answer specific questions relating to the actual mini project. In the case where English is not your native language, supervisors are allowed to see a draft of mini projects and to comment on grammar, spelling and usage only.

Your general supervisor can also read and comment on a draft of your dissertation – especially with regard to its general presentation.

5.2 "Dissertation" supervisor

Your dissertation supervisor will guide you while you are preparing and writing your dissertation. Normally, students "find" their dissertation supervisor before the end of Hilary term so that they can start some specialised reading after completing that term's mini projects, and before the beginning of Trinity term. At the beginning of that term, you should prepare a "dissertation proposal" with your intended dissertation supervisor and submit it for approval. It is normal to have around eight meetings with your dissertation supervisor, mainly during Trinity term, but possibly continuing into July, but the exact arrangements are made mutually. Your supervisor will read and provide feedback on the initial draft of your dissertation (provided that it is submitted to them in good time!).

Your dissertation supervisor will normally be a faculty member or senior postdoc. If you would like to be supervised by someone more junior you should consult the Course Director, who will need to approve any such arrangement, possibly with the involvement of a more senior co-supervisor.

Your dissertation supervisor should normally be based in the Mathematical Institute, the Department of Computer Science or the Department of Statistics; if you are considering a potential supervisor outside these

departments or outside Oxford, you should consult the Course Director at an early stage. Also, if work on your dissertation should require you to work out of Oxford at any point during Trinity term, you must consult the Course Director before making any arrangements.

6. Resources and Facilities

6.1 Workspace

The M.Sc. in Mathematics and the Foundations of Computer Science has a dedicated student work-room, room N0.21, on the ground floor in the North Wing of the Andrew Wiles Building. The room contains a number of computers on the Mathematical Institute's IT network as well as space for students to use their own laptops, although there is not room for each student to have an individual desk.

6.2 Libraries

Whitehead Library, Mathematical Institute

Contact: Ms Cathy Hunt (Librarian) Email: library@maths.ox.ac.uk

Website: http://www.maths.ox.ac.uk/members/library

The Whitehead Library holds material covering mathematical topics at postgraduate and research level. It is primarily for the use of current postgraduate students and academic staff of the Mathematical Institute.

Your University Card will have been activated to open the library door and will give you 24/7 access.

Books taken out of the Library must be checked-out on the SOLO computer loan system at the terminal in the library. Please note that books are not allowed to be taken away from Oxford and should be returned to the library before you leave Oxford for vacation, or any other length of time.

Radcliffe Science Library (RSL)

Website: https://www.bodleian.ox.ac.uk/libraries/rsl

The Radcliffe Science Library is the science library of the Bodleian and includes mathematics books at graduate and research level.

College Libraries
You will have access to the library in your own College

Oxford Libraries

Information about all Oxford Libraries can be found at:

https://www.bodleian.ox.ac.uk/libraries

6.3 Computing Facilities

Information regarding the University's IT Services can be found at http://www.it.ox.ac.uk/.

IT and Email accounts

At the departmental induction session, you will be given a Mathematical Institute IT account and email address. The email address will be of the format firstname.lastname@maths.ox.ac.uk.

MSc students will also receive a University 'single-sign-on' IT account. This will have an email address associated with it which will be of the format firstname.lastname@college.ox.ac.uk.

It is important that students either read both these emails regularly or set up a forward from them to an account which they do read regularly.

For further information about Departmental IT matters, including rules and regulations surrounding the use of IT facilities, please see http://www.maths.ox.ac.uk/members/it

You will have access to various licences. For further details go to

http://www.maths.ox.ac.uk/members/it/software-personal-machines.

6.4 Careers Service

Careers guidance is provided by the Careers Service (http://www.careers.ox.ac.uk/), which also provides training in writing applications, interview techniques and analysis of transferable skills. The Careers Service provides information about occupations and employers, and advertises work experience opportunities.

In addition to its general programme, the Careers Service runs an annual 'Jobs for Mathematicians' half-day, in collaboration with the Mathematical Institute. At this event there are talks from alumni working in various industries and a talk for those interesting in continuing on to further postgraduate study. Further information about postgraduate study opportunities at the Mathematical Institute can be found at; https://www.maths.ox.ac.uk/study-here/postgraduate-study

7 Student Representation and Feedback

7.1 Student Representation

Students will be able to nominate a representative to sit on the Joint Supervisory Committee (JSC) which oversees the course. Volunteers will be sought at the Induction Session and an election held if necessary (ie. if there is more than one volunteer). The student representative will be able to raise matters with the JSC on behalf of the cohort.

7.2 Joint Consultative Committee with Graduates

Graduate students' views are fed into the departmental structure via the Consultative Committee with Graduates. The committee's operation is described in the following standing order:

"The committee consists of up to 6 junior members reading for higher degrees, and the Directors of Graduate Studies. One or two of the junior members should be following an MSc by coursework.

The committee members are appointed from amongst graduate students admitted by the Mathematical Institute, and graduate students following taught MScs by coursework for which the Mathematical Institute shares some teaching responsibility. Nominations and self-nominations are invited by circulating these graduate students

electronically in the second week of Michaelmas term. Elections are held electronically during the fourth week of Michaelmas term, with three working days being given for voting. The one MSc (coursework) student with the most votes, the three research students (DPhil or MSc by research) with the most votes, and the two remaining students (either MSC or DPhil) with the most votes are elected. The committee has the power to co-opt junior members such that membership is complete. The committee may operate, if necessary, without its full complement of places having been filled.

The committee is concerned with matters such as the syllabus, teaching arrangements, library facilities, office facilities, and the general aspects of examinations and it will annually review examiners reports for the taught MScs.

The Director of Graduate Studies (R) is appointed as Chair of the committee. The DGS(T) is a member, ex officio. The Deputy Head of Academic Administration or another member of Mathematical Institute staff will act as secretary to the committee. The minutes of the committee are forwarded to the Graduate Studies Committee. The committee is able as of right to address a communication direct to the Department Committee, the Research Committee, or the Graduate Studies Committee, of the Mathematical Institute depending on the matters involved.

The committee meets at 1pm on Tuesday in the 3rd week of each full term unless the HOD determines otherwise."

Information can be found at;
https://www.maths.ox.ac.uk/members/students/postgraduate-courses/doctor-philosophy/consultative-committee-graduates

7.3 Opportunities to Provide Feedback

Students will be asked to complete questionnaires evaluating the teaching received for each unit. Please take time to complete these as your feedback is valuable for future course planning.

Students on full-time and part-time matriculated courses are surveyed once per year on all aspects of their course (learning, living, pastoral support, college) through the Postgraduate Taught Experience Survey. Previous results can be viewed by students, staff and the general public at: https://www.ox.ac.uk/students/life/student-surveys.

Students will also be asked to complete an end of year questionnaire for the course and are able to provide feedback on all aspects of the MSc.

7.4 Key Student Representation Links

CCG: https://www.maths.ox.ac.uk/members/students/postgraduate-courses/doctor-philosophy/consultative-committee-graduates

Oxford SU: http://oxfordsu.org/

University Surveys: http://www.ox.ac.uk/students/life/student-surveys

8. Student Support and Academic Policies

8.1 Where to Find Help

Generally speaking for graduate students' departments are the main source of academic support and colleges are the main source of pastoral support.

If you have missed a number of lectures through illness or other reasons, please consult with your supervisor for advice on catching up missed work. If you are ill and unable to attend a class please inform the class tutor in advance of the class.

Every college has their own systems of support for students, please refer to your College handbook or website for more information on who to contact and what support is available through your college.

Details of the wide range of sources of support available more widely in the University are available from the Oxford Students website (http://www.ox.ac.uk/students/welfare), including in relation to mental and physical health and disability.

8.2 Complaints and Academic Appeals

The University, the MPLS Division and the Mathematical Institute and the Department of Computer Science all hope that provision made for students at all stages of their course of study will result in no need for complaints (about that provision) or appeals (against the outcomes of any form of assessment).

Where such a need arises, an informal discussion with the person immediately responsible for the issue that you wish to complain about (and who may not be one of the individuals identified below) is often the simplest way to achieve a satisfactory resolution.

Many sources of advice are available from colleges, departments and bodies like the Counselling Service or the Oxford SU Student Advice Service, which have extensive experience in advising students. You may wish to take advice from one of those sources before pursuing your complaint.

General areas of concern about provision affecting students as a whole should be raised through Joint Consultative Committees or via student representation on the faculty/department's committees.

Complaints

If your concern or complaint relates to teaching or other provision made by the faculty/department, then you should raise it with the Director of Graduate Studies, Prof. Christoph Reisinger. If your concerns relate to the course as a whole, rather than to teaching or other provision made by one of the faculties/departments, you should raise it with Prof Paul Goldberg, or Prof Oliver Riordan, Chairs of the Joint Supervisory Committee for the course. Complaints about departmental facilities should be made to the Director of Administration and IT (Dr Keith Gillow). If you feel unable to approach one of those individuals, you may contact the Head of Department/Faculty (Prof. James Sparks). The officer concerned will attempt to resolve your concern/complaint informally.

If you are dissatisfied with the outcome, you may take your concern further by making a formal complaint to the Proctors under the University Student Complaints Procedure (https://www.ox.ac.uk/students/academic/complaints).
If your concern or complaint relates to teaching or other provision made by your college, you should raise it either with your tutor or with one of the college officers, Senior Tutor, Tutor for Graduates (as appropriate). Your college will also be able to explain how to take your complaint further if you are dissatisfied with the outcome of its consideration.

Academic Appeals
An academic appeal is an appeal against the decision of an academic body (e.g. boards of examiners, transfer and confirmation decisions etc.), on grounds such as procedural error or evidence of bias. There is no right of appeal against academic judgement. If you have any concerns about your assessment process or outcome it is advisable to discuss these first informally with your subject or college tutor, Senior Tutor, course director, director of studies, supervisor or college or departmental administrator as appropriate. They will be able to explain the assessment process that was undertaken and may be able to address your concerns. Queries must not be raised directly with the examiners. If you still have concerns you can make a formal appeal to the Proctors who will consider appeals under the University Academic Appeals Procedure (https://www.ox.ac.uk/students/academic/complaints).

8.3 Student Societies

There are number of Mathematics and Computer Science student societies which you may like to join. Details of the main societies are given below. In addition, there are also over 400 clubs and societies covering a wide range of interest which you may join or attend. A full list is available at http://www.ox.ac.uk/ students/life/clubs/list.

Invariants

The Oxford University's student society for Mathematics. The society promotes Maths and hosts informal lectures, often given by leading mathematicians. Website: https://www.invariants.org.uk

Mirzakhani Society

The Mirzakhani Society is a society aimed at supporting women in Oxford who are studying maths. Their main event is 'Sip and Solve' which happens once a week, tea and cake are provided, and women are encouraged to come along to do problem sheets. Contact: mirzakhanisociety@gmail.com.

LGBTI∧3

LGBTI∧3 is the student group for all LGBTQ+ identifying students in Maths, Stats and Computer Science. They meet regularly for tea, biscuits and a chat. Contact: oxlgbtqubed@gmail.com.

The Oxford Women in Computer Science Society

The Oxford Women in Computer Science Society (OxWoCS) aims to support and promote women in computer science. The society exists for all women in computer science, be they students, faculty, or staff. OxWoCS runs a number of academic, social, and career events throughout the year, including weekly coffee meetings, talks by distinguished female speakers, and industry sponsored events.
The society provides networking opportunities and a support network comprising role models, mentors, and peers. OxWoCS exists to help enhance the quality of life for all members of the department. Website: https://www.cs.ox.ac.uk/societies/women/

The Oxford University Computer Science Graduate Students Society

The Oxford University Computer Science Graduate Students Society (CoGS) provides a platform for the academic and social life of post-graduates in the department. They cover both student representation on several departmental and divisional committees as well as organization of a variety of social events. The latter provide an excellent opportunity for MSc students, DPhil students and post docs to mingle and catch up outside their research groups. Website: https://www.cs.ox.ac.uk/societies/COGS/.

8.4 University Policies

The University has a wide range of policies and regulations that apply to students. These are easily accessible through the A–Z of University regulations, codes of conduct and policies available at http://www.ox.ac.uk/students/academic/regulations/a-z.

Particular attention is drawn to the following University policies:
Equal Opportunities Statement: https://edu.admin.ox.ac.uk/
Intellectual Property Rights: https://www.ox.ac.uk/students/academic/guidance/intellectual-property
Code on Harassment: https://edu.admin.ox.ac.uk/harassment-advice
Policy on Plagiarism: http://www.ox.ac.uk/students/academic/guidance/skills/plagiarism
Policy on recording lectures by students: https://academic.admin.ox.ac.uk/educational-recordings-policy

8.5 Departmental Safety Policies

You are urged to act at all times responsibly, and with a proper care for your own safety and that of others. Departmental statements of safety policy are posted in all departments, and you must comply with them. Students should note that they (and others entering onto departmental premises or who are involved in departmental activities) are responsible for exercising care in relation to themselves and others who may be affected by their actions.
In the Mathematical Institute accidents should be reported immediately to reception, telephone 73525, who keep the accident book. There is a first aid room located on the ground floor of the South wing. If you require access to this room please report to reception.
Each lecture theatre has its own proper escape route and you are urged to familiarise yourself with these. Those for the Mathematical Institute lecture and seminar rooms, are set online at https://www.maths.ox.ac.uk/members/building-information/security-safety-and-reporting-building-issues

In the case of evacuation of the lecture theatre give heed to the instructions of the lecturer.

8.6 Key Student Support Links and Contacts

Disability Co-ordinator (Mathematics): Charlotte Turner-Smith (academic.administrator@maths.ox.ac.uk)

Disability Co-ordinator (Computer Science): Rachel Breward (rachel.breward@cs.ox.ac.uk)

University's Disability Advisory Service: http://www.ox.ac.uk/students/welfare/disability

Counselling Service: (tel: (2)70300) email: counselling@admin.ox.ac.uk

Proctors' Office: (tel: (2)70090) email: proctors.office@proctors.ox.ac.uk

Departmental Harassment Advisors: names and contact details displayed in Mezzanine Study Room.

Oxford University Student Union, Vice President (Welfare): (tel: (2)88452) email: welfare@ousu.ox.ac.uk

Appendices

A. COURSE CALENDAR

Michaelmas Term

8 October, (Tuesday of week 0)	Induction
14 October, (Monday week 1)	Michaelmas term lectures begin
28 October, (Monday week 3)	Deadline to confirm course choices
6 November, (Wednesday week 4)	Workshop on dissertation preparation and procedures
7 November, 12pm (Thursday week 4)	Examination entry for all MT courses
6 December, (Friday week 8)	MT Mini projects released
6 December, (Friday week 8)	Michaelmas term lectures end
8 January, 12pm (Wednesday week 13)	Deadline to submit MT mini projects

Hilary Term

20 January, (Monday week 1)	Hilary term lectures begin
3 February, (Monday week 3)	Deadline to confirm course choices
13 February, 12pm (Thursday week 4)	Examination entry for all Hilary term courses
14 March, (Friday week 8)	Hilary term lectures end
14 March, 12pm (Friday week 8)	HT Mini Projects released
16 April, 12pm (Wednesday week 13)	Deadline to submit Hilary term mini projects

Trinity Term

28 April, (Monday week 1)	Trinity term lectures begin
9 May, 12pm (Friday week 2)	Deadline to submit a dissertation proposal
12 May (Monday week 3)	Deadline to confirm course choices
15 May, 12pm (Thursday week 3)	Examination entry for all Trinity term courses
11 and 12 June (Wednesday and Thursday week 7)	Dates for student presentations on dissertations
20 June, (Friday week 8)	Trinity term lectures end
20 June, 12pm (Friday week 8)	TT Mini Projects released
23 July, 12pm (Wednesday week 13)	Deadline to submit Trinity term mini projects

Long Vacation

Thursday 4 September, 12pm	Deadline to submit dissertations
September, week beginning 22nd Sept, TBC	Dates for viva examinations

B COURSES OFFERED IN 2024-25

Schedule I

Algebraic Topology - C	Prof Andre Henqriques	MT
Algebraic Number Theory – B	Prof Victor Flynn	HT
Analytic Number Theory - C	Prof Ben Green	MT
Analytic Topology - C	Prof Rolf Suabedissen	HT
Categories, Proofs, and Processes – (CS)	Prof Bartek Klin	HT
Category Theory - C	Dr Lukas Brantner	MT
Computational Complexity (CS)	Prof Rahul Santhanum	HT
Computer-Aided Formal Verification (CS)	Prof David Parker	MT
Godel's Incompleteness Theorem - C	Prof Robin Knight	HT
Graph Theory - B	Prof. Paul Balister	MT
Information Theory - B	Prof Sam Cohen	MT
Integer Programming - B	Dr Jari Fowkes	MT
Introduction to Quantum Information - C	Prof Artur Ekert	HT
Lambda Calculus and Types (CS)	Dr Amir Goharshady	HT
Model Theory - C	Prof Jochen Koenigsmann	MT
Quantum Processes and Computation (CS)	Prof Aleks Kissinger	MT
Topology and Groups - B	Prof Andras Juhasz	MT

Schedule II

Additive Combinatorics - C	Prof Ben Green	HT
*Applied Category Theory (bespoke Maths)	Dr Carmen Constantin	TT
Algebraic Geometry - C	Prof Damien Rossler	MT
Automata, Logic and Games (CS)	Prof Michael Benedikt	HT
Axiomatic Set Theory - C	Dr Robin Knight	MT
Bayesian Statistical Probabilistic Programming (CS)	Dr Gunes Baydin	MT
Combinatorics - C	Prof Alex Scott	MT
Computational Algebraic Topology - C	Prof Vidit Nanda	HT
*Classical and Quantum Compositional Distributional Meaning (bespoke maths))	Prof Bob Coecke	HT
Distributed processes, types, and programming (CS)	Prof Nobuko Yoshida	MT
Elliptic Curves - C	Dr James Newton	MT
Foundations of Self-Programming Agents (CS)	Prof Giuseppe de Giacomo	HT
Geometric Deep Learning (CS)	Prof Michael Bronstein	HT
Geometric Group Theory - C	Prof Cornelia Drutu	HT
Graph Representation Learning (CS)	Dr Ismail Ceylan	MT
Homological Algebra - C	Dr Kobi Kremnitzer	MT
Infinite Groups - C	Prof Cornelia Drutu	MT

*Introduction to Schemes - C	Prof Kevin McGerty	HT
Low-dimensional Topology and Knot Theory - C	Prof Andras Juhasz	HT
Networks - C	Prof Peter Grindrod	HT
Probabilistic Combinatorics - C	Prof Oliver Riordan	HT
Topological Groups (bespoke Maths)	Prof Tom Sanders	TT

*These courses are offered as directed reading courses, with syllabuses provided as in the case of lecture courses. There may be one or two more reading courses to be added later.

We regret that due to timetabling restrictions there will be a number of clashes between lecture courses. please check the lecture timetable carefully.