General Information

General advice about choosing options, how to study, where to get support in the Mathematics Department, help when things go wrong and how to make the most of your degree.
Overview

An overview of the department

The Mathematics Institute was founded in 1965 by Professor Sir Christopher Zeeman, since when it has gone on to become one of the leading research and teaching departments in the country.

The Institute has approximately 75 permanent academic staff plus about 50 research fellows and junior and temporary staff along with a large and vibrant postgraduate community. A distinguishing feature of the department is the number of Professors and Readers - among the highest proportion of any UK mathematics department. Academic staff are all active research mathematicians and many are international leaders in their field. There is a lively, informal research atmosphere and the Institute hosts many conferences and workshops involving visiting mathematicians from all over the world. This strong and lively research culture informs and stimulates exciting teaching.

The Institute’s research has received excellent scores in all the national research assessment exercises conducted over the last 20 years. In the last such exercise, the 2014 REF (Research Excellence Framework) exercise, Warwick Statistics and the Warwick Mathematics Institute together were ranked 3rd in the UK with more than 90% of our research activity assessed as either internationally excellent or world leading. Our research environment at Warwick was rated by REF 2014 as the very best in the UK for mathematical sciences (achieving the maximum possible score of 100% at 4*). In 2014 one of our previous staff, Prof. Martin Hairer, won a Fields Medal for his work in Stochastic Analysis.

A summary of the research activities of the department can be found here and a list of research interests of permanent members of academic staff here.

The undergraduate Mathematics programme at Warwick is distinguished for its ACADEMIC EXCELLENCE and FLEXIBILITY and CHOICE. The course is demanding, challenging and exciting. The large size of the department means that it can offer a rich and varied diet of mathematics modules. Many options from other departments are also available.

A summary of the research interests in Statistics, including many of the staff in Mathematics can be found at http://www2.warwick.ac.uk/fac/sci/statistics/research/paw.

Aims of the BSc and MMath courses

All our courses aim to

- attract well-qualified students;
- provide an intellectually stimulating environment;
- help students develop key intellectual skills;
- provide a challenging education, with flexibility and breadth, in mathematics and its applications;
- produce high quality graduates who are well prepared for the next step of their professional lives, whether this involves further research training or moving directly into a career.

The MMath course aims additionally to

- enable students to study mathematics in greater depth and/or breadth;

The joint BSc courses aim additionally to

- allow students to add a coherent body of specialist knowledge in another discipline to their core mathematical knowledge.
Both degrees are very strong mathematically, and both are extremely well valued by employers. (For most careers, doing well in either one is a good basis for a strong application, and many employers do not distinguish between the two.) They each have their own advantages. The BSc allows one to take more options other than Mathematics modules. So, for example, one could develop a major second discipline in some depth (such as Statistics or Computing or Physics or spoken languages or many others) or one could add a broad selection of one-off topics from around the university (perhaps a bit of Business Studies together with some Economics and Philosophy) to add a range of different skills and knowledge to your CV. Or of course one could stick to Mathematics modules entirely.

The MMath takes a year longer and so allows one to dive deeper into extremely advanced mathematics. This leaves less room for taking modules outside Mathematics than on the BSc, though it is still possible. So if you are thinking of further study in Mathematics after your degree, or looking at careers in industry that involve mathematical research, or just want to study as much mathematics as possible, then the MMath is a good option.

It is easy to switch between the two courses in the first year (and even in the second), so it doesn't matter which you pick to start on. There are always highly successful students who graduate on both courses, and all students on both courses take lectures and classes together and can work together on the same mathematical problems.

An outline of the course

The 3 year BSc degree course

The bachelor degree course lasts three years, leading to a BSc for which honours will usually be awarded. Flexibility is the keynote of the mathematics courses. While you remain in the Mathematics Department, you will study a central core of mathematics. To this core you add optional modules in mathematics, other science subjects or in any of the arts or social science subjects taught at Warwick. Within limits, proportions may be varied to suit individual tastes. The Mathematics Department tries to make as many options as possible available to students; as the University has grown, so has the choice, and we intend this to continue. Joint degree courses with a number of other subjects are available. It is also possible to spend a year abroad or in industry on the so-called Intercalated Year course.

Roughly speaking, the core consists of several basic modules in modern pure mathematics, some differential equations including their use in modelling a variety of simplified real-life problems and calculus in two and three dimensions. The core comprises approximately 75% of the first year and 45-65% of the second year. More detail on the proportions of core and optional modules allowed in each year can be found in the “Regulations” section.

The Department caters (among others) for students in the following categories:

1. Those whose main interest is pure mathematics.
2. Those who intend to specialise in applied mathematics.
3. Those who want to combine some pure or applied mathematics courses (perhaps as little as 50%) with a selection from a wide area of studies, not necessarily related to mathematics.

If, as you read this, you don't know which category you will fit in, don't worry. You will have plenty of time to decide. We hope to provide you with enough guidance while at Warwick so that you can understand the system and apply it to your own purposes.

The 4 year MMath degree course

The Master of Mathematics (MMath) course is a 4-year degree course that was set up following an initiative of the London Mathematical Society. The rationale for the 4-year degree is that there is a national need for more graduates in mathematics with a qualification higher than that provided by a 3-year degree, and comparable with the 4- or 5-year first degree courses common in Europe.

The first two years of the degree are in common with those of the BSc course although more mathematics is required in Year 2. The MMath course replaces Year 3 of the BSc with two years of more substantial and specialised mathematics.

You may enrol in the MMath course through UCAS. In addition, students on the BSc course may apply to transfer to the MMath any time during their first two years. If you are at all interested in transferring to the MMath course, you are strongly encouraged to apply before starting Year 2. Transfer from the MMath to the 3 year BSc course is straightforward before the end of Year 2, and is permitted during Year 3, Term 1.

To remain on the MMath course after Year 2, a student must average good 2.1 marks from the best 90 CATS from Core and List A maths modules in the 2nd Year examinations. Analysis of marks from previous years has shown that MMath students who obtain less than 65% in year one rarely achieve this target in year two. In addition they make life difficult for themselves in trying to meet the MMath target since they have a larger load of math modules. MMath students who achieve less than 65% in year one are strongly encouraged to switch to the three year bachelors degree. However students on the bachelor degree who achieve this target at the end of Year 2 are invited to transfer to the MMath if they have studied the appropriate modules in Year 2.

MMath students with adequate language skills may be allowed to replace the third year of the MMath degree by an equivalent year of study at a European university (see information on MMath with Study in Europe).

An MMath student whose Year 3 mark is under 55%, or whose best 90 CATS of MA3 or MA4 modules is less than 55%, can be required to graduate with a BSc by the Exam Board. Such marks suggest that they would almost certainly find Year 4 too hard.

Since funding for UK students to take a non-vocational MSc was phased out, the MMath has become the standard route to follow for students interested in studying for a PhD degree.

There are also a number of Joint Degrees within the Mathematics Department as well as courses run by other departments which have a large overlap with ours. Transfer between courses is possible with the agreement of the departments concerned and necessary prerequisites having been taken.
What Can You Gain From A Mathematics Degree?

During your Mathematics Degree, you will be given opportunities to develop many skills. Some of these are specifically related to mathematics, and some have relevance outside it. Those skills that can be used in other contexts - such as the ability to solve problems, communicate well, learn quickly, organise your time - are called transferable skills.

Transferable Skills

Although it may seem a long way off, chances are that one day, degree-in-hand, you will be looking for a job. Your transferable skills will be of particular interest to potential employers, who will not just be concerned with your performance in your subject, but in the overall contribution you can make to their organisation. If you can convince an employer that you can work well within a team, solve problems, organise, innovate, adapt, and so forth, you will outshine your competitors in the job market.

Below is a list of skills, both transferable and subject-specific, that your Mathematics Degree can offer you. It provides an interesting glimpse into how you might change and develop over the next few years. It will help focus your attention on exactly what you have achieved during your degree course - and this will make you better able to communicate these achievements to others, especially when writing job applications and attending interviews.

So, read on to find out not what you can do for your Mathematics Degree, but what your Mathematics Degree can do for you.

Mathematical Skills. As a mathematics student you will study each of the major subject areas of modern mathematics: algebra, analysis, geometry, statistics, and applied mathematics. In the course of this study you will learn:

1. The language of mathematics and the rules of logic.
2. How to state a mathematical idea precisely.
3. How to prove or disprove a mathematical conjecture.
4. How to extract meaning from mathematics on the written page.
5. How to use mathematics to describe the physical world.

Analytical Skills. Having done a Mathematics Degree, you will never again be able to tolerate sloppy reasoning. Mathematics will enhance your ability to:

1. Think clearly.
2. Pay attention to detail.
3. Manipulate precise and intricate ideas.
4. Follow complex reasoning.
5. Construct logical arguments and expose illogical ones.

Problem Solving Skills. You will be given countless mathematical problems to solve over the course of your degree. Experience with these will teach you to:

1. Formulate a problem in precise terms, identifying the key issues.
2. Present a solution clearly, making your assumptions explicit.
3. Gain insight into a difficult problem by looking at special cases or sub-problems.
4. Be flexible, and approach the same problem from different points of view.
5. Tackle a problem with confidence, even when the solution is not obvious.
6. Seek help when you need it.

**Investigative Skills.** During your studies you will sometimes find yourself trying to understand mathematics that seems too hard, and trying to solve problems that at first seem impossible. You may also be asked to do essays and projects which involve you privately investigating an area of mathematics you know nothing about. All this will turn you into an amateur sleuth, on the trail of information and inspiration. You should find yourself:

1. Looking up lecture notes, text books and reference books.
2. Scouring the library.
3. Searching databases for references.
4. Extracting information from every mathematician you meet (other undergraduates, postgraduates, tutors and lecturers).
5. Thinking!

**Communication Skills.** A Mathematics Degree will develop your capacity to assimilate and communicate highly technical information. During lectures you will be required to organise and record a mass of mathematical detail, both spoken and written. Homework exercises, and any essays and projects you do, will call for clear mathematical exposition. During supervisions you will find yourself exchanging mathematical ideas with your supervisor and fellow students. You may well find yourself discussing mathematics in conversation with your fellow students and your lecturers. In your later years you may be given the opportunity to teach other undergraduates. Through these experiences you will have the opportunity to learn how to:

1. Listen effectively.
2. Write mathematics well.
3. Write essays and reports.
4. Give a mathematical presentation to a group.

**IT Skills.** During your degree you will have access to computing facilities. You will have the opportunity to:

1. Learn a programming language.
2. Solve problems using mathematical software.
3. Learn word-processing, of both text and mathematics.

**Good Working Habits.** To be a successful mathematics student you will have to:

1. Be thorough and painstaking in your work.
2. Organise your time and meet deadlines.
3. Work under pressure, especially near exam time.
4. Work independently, without constant support from teachers.
5. Work co-operatively with others to solve common problems.

**Useful Personality Traits.** One mathematics professor used to tell each incoming first year class that doing a Maths Degree would change them for life. Battling successfully with ideas that are hard to understand and problems that are hard to solve fosters:

1. Determination
2. Perseverance
3. Creativity
4. Self-confidence, and
5. Intellectual rigour.

---

**Year 1 regs and modules**

G100 G103 GL11 G1NC

**Year 2 regs and modules**

G100 G103 GL11 G1NC

**Year 3 regs and modules**

G100 G103

**Year 4 regs and modules**

G103

**Exam information**

Core module averages
Although only founded in 1965, Warwick is now one of the largest mathematics departments in England (together with Oxford and Cambridge), and is a world centre of mathematics research. We have about 100 graduate students, and around 15-20 Ph.D.s graduate each year. Many Warwick graduates are mathematics lecturers or professors at top universities in Britain, the United States and other countries.

You may not feel that you, as an undergraduate, are in direct contact with research mathematics, but the research strength of the Warwick Department provides many important benefits. Your graduate supervisor, and most of your lecturers, were attracted and kept here by the research quality and the unique atmosphere. Your lecturers are playing a leading role in many areas of mathematics, and are in contact with many of the world's top mathematicians. Lecturers involved in research are interested in their subject, and enthusiastic in lectures; there's nothing worse than a lecturer bored with his subject!

The Warwick Mathematics Institute is involved in running a number of Centres:

**Mathematical Interdisciplinary Research at Warwick (MIR@W, Director: Robert MacKay)** The guiding principle behind MIR@W is a view of the relation between maths and other sciences that is broader than traditional applied mathematics, and accommodates new and rapidly growing areas such as mathematical biology, computer science and information technology, economics, finance and the environmental sciences. Eleven Warwick departments currently belong to MIR@W: Biological Sciences, Chemistry, Computer Science, Economics, Engineering, Mathematics, Physics, Psychology, Maths Education, Statistics, Warwick Business School. MIR@W activities include an M.Sc./Ph.D. programme, an active series of workshops on focussed topics, and interdepartmental research seminars and projects.

**Mathematics Research Centre (MRC, Director: Keith Ball)** The MRC was Christopher Zeeman's brainchild, and has been the life and soul of maths at Warwick for the last 45 years. It runs a symposium and several short workshops each year. A Warwick symposium is a year-long conference on a chosen field of mathematics, supported by a main grant from the British EPSRC (Engineering and Physical Sciences Research Council), and attracting mathematicians from all over the world. The curiously shaped (but very comfortable) houses behind the Gibbet Hill cafeteria were built with a grant from the Nuffield Foundation in the late 1960s to house some of these visitors.

Warwick Symposia have taken place most years since 1965 in almost every field of mathematics research. The themes over the last ten years have been:

- 2008-09 Challenges in Scientific Computing
- 2009-10 Complexity and systems biology
- 2010-11 Ergodic Theory and Dynamical Systems
- 2011-12 Probability
- 2012-13 Number Theory
- 2013-14 Statistical Mechanics / Mathematics of Phase Transitions
- 2014-15 Derived Categories and Applications
- 2015-16 Fluctuation-driven phenomena and large deviations
- 2016-17 Partial Differential Equations and their Applications

The symposium currently under way is:

- 2017-18 Geometry, Topology and Dynamics in Low Dimensions

**Complexity Science (Co-Director: Colm Connaughton)** The University of Warwick leads the UK with a ground-breaking “Complexity Complex” to connect and develop interdisciplinary research in complexity science at all levels, train a new generation of complexity scientists via a doctoral training centre, understand, control and design complex systems, produce break-throughs in the principles and applications of complexity science, link with end-users as sources of real-world problems and beneficiaries from the resulting knowledge and trainees, and sustain a lively intellectual and practically based environment for complexity science.

**Discrete Mathematics and its Applications (DIMAP, Director: Artur Czumaj, Computer Science)** DIMAP is a collaboration between Department of Computer Science, the Warwick Mathematics Institute, and the Operational Research and Management Sciences group in the Warwick Business School. The goal of the DIMAP Centre is to establish a strong multidisciplinary research centre supporting an internationally competitive programme of research in discrete modelling, algorithmic analysis, and combinatorial (discrete) optimization. It aims to support a thriving Industrial Affiliates Programme, and develop collaborative research rooted in discrete mathematics, involving researchers at other UK universities.

**Systems Biology and Infectious Disease Epidemiology Research** (Director: Matt Keeling) Systems biology involves developing the understanding of a biological system through the mathematical and computational modelling of the interactions of components of the system, leading to the expression of this understanding in qualitative and quantitative terms. Epidemiology research attempts to model the spread of various diseases through mathematical modelling, to understand how diseases spread and how this spread can be curtailed or how they may be prevented. This research centre is joint with the School of Life Sciences.

**Year 1 regs and modules**
G100 G103 GL11 G1NC

**Year 2 regs and modules**
G100 G103 GL11 G1NC
University mathematics is very different to 'A' level or equivalent, in both material and how it is taught. As first year students begin their University career it can be quite a leap from sitting in a classroom of 20 students to suddenly spending most of their “contact time” with lecturers in theatres of 300 students or more. For this reason we provide additional support during the first year in the form of Supervisions. But by the time you graduate, we have gradually reduced this level of support and you should all have become more independent learners, if there is something you don't understand then you have learnt the tools to find resources to help, and to tackle the problem in a systematic manner.

To this end, the first years receive the most support, mainly through the Analysis I classes in the first term, twice weekly meetings with Supervisors in groups of 5, and compulsory weekly assignments. In the second year these supervisions are reduced to only 8 in term 1 (in normal years). At the same time core modules now only have fortnightly compulsory assignments and support classes are introduced for these core modules (classes of approximately 30 to 50 students given by postgraduates). By the third year there are no longer supervisions, and most modules will have only support classes. Fourth year modules will also sometimes have support classes, but it is not always the case.

Throughout this time your Personal Tutor will also be there to help you, although once you reach the third year they will be less familiar with specific modules if they are not in their own research areas. This, of course, becomes worse for year 4 modules since many of them are at the cutting edge of current research and so the lecturer or support class TA are often the only port of call for queries. We try to keep you with the same Personal Tutor throughout your degree if we can, but this is often not possible if the tutor takes research leave, for example.

During all this time you will be receiving feedback on your work and understanding of the material. This comes in many forms, feedback is not just written comments on a piece of work. For example:

- Assignment sheets marked by your supervisor will have written comments on as well as the mark, and your supervisions will be crucial to aiding your understanding of the work and where you could improve.
- Assignment sheets marked by Support Class TAs will often have less written feedback on due to the number they have to mark in a short time so they can get it back to you as soon as possible. However, the marks you receive for each question, or part of question, will tell you how you have done and the Support Classes will often highlight common mistakes. These classes are also the opportunity to ask questions, don't be shy.
- Any mark you get is feedback. If you get a bad mark then try to understand why you got that mark, don't just bury the piece of work until you start revising for exams.
- In the first year you will have some multiple choice tests for MA132 Foundations, for which you are given the solutions as you leave. This is instant feedback, and although it may take a few days to get the result of the tests, you know straight away if you understood the material you were being tested on.
- For the second year essay (core), third year essay (option) and fourth year project there is ample opportunity to get feedback, although don't expect to have someone looking over your shoulder. To get feedback you need to produce some work and hand it in to the supervisor of that module (your Personal Tutor for the 2nd year essay).

More information on each of these headings is below:

- Lectures
- Personal Tutors
- Supervisions
- Support Classes

Please note that when given sufficient warning we will email you to let you know if any class has had to be cancelled.

Text Books and the University library

Library Home Page | Searchable catalogues

In the Student Reference Collection (SRC) you will find copies of the most useful textbooks for undergraduate study, with very restricted borrowing to make sure that they are available to the largest possible number of people.
In the main part of the University Library is an excellent wider collection of mathematics books. Get into the habit of browsing - books contain all sorts of interesting things! If you don’t understand part of a module, try to find the material in a book. Learn how to track down books on a particular topic by browsing, using the library online catalogues and the review journals, guessing, and, when all else fails, searching physically through large numbers of books. You can’t be a serious academic or scientist without detective work in libraries, and although resources available on the Internet are easier to locate there is still no substitute for browsing books.

During your first week at Warwick you should make yourself familiar with the Central Campus Library, there are excellent resources on their website to introduce you to the facilities available. If you need further help during your course, ask at the Enquiry Desk on Floor 1 during office hours, consult the printed guides and leaflets available on each floor or contact the Library’s Science Team. Chris Vernon (email: christopher.vernon@warwick.ac.uk) is the Subject Librarian for Mathematics and the departmental library representative is Sheetal Sharma. Contact either of them about any books which you feel ought to be in the Library, or if there are not enough copies of key texts. (Library matters can also be raised at SSLC meetings.)

We do not expect you to buy your own copies of textbooks, but for some modules you may find it useful to do so, especially modules that you may find yourself struggling on. The University has an arrangement with Blacwells which includes a price match guarantee: https://warwick.ac.uk/services/retail/shops/booksgifts. Standard maths textbooks will typically be around 40 pounds to buy from new, but cheaper copies can be found online second-hand (Amazon is good for this), or sometimes you can find students from higher years selling their old copies through the Student Union.

**Year 1 regs and modules**
G100 G103 GL11 G1NC

**Year 2 regs and modules**
G100 G103 GL11 G1NC

**Year 3 regs and modules**
G100 G103

**Year 4 regs and modules**
G103

**Exam information**
Core module averages

---

**Lectures**
(https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/support/lectures/)

The most formal teaching sessions are lectures. The lecturer is not just a teacher but is someone with considerable professional experience of the subject, who probably knows vastly more about it than you would ever remotely imagine. The lecturer tells you a substantial part of the material you need to know, and the rate of progress is much faster than in A-level teaching. Don’t miss even one: even if you copy the notes from a friend or get them from the web, the effect is not the same as the live performance. (The exception is if you are the student who gets full marks in all the assignments the lecturer sets, and helps all your friends with their difficulties - then if you find that reading an advanced textbook is more useful, you may be able to afford to miss some lectures.) Lecturers usually distribute example sheets and assignments to help you learn. Some assignments may be for credit, or there may be in-class tests. Some modules are not taught by lectures: there are reading modules (you learn directly from a book or similar), laboratories, seminars, essays and projects.

Tip: if you are having problems understanding the lectures, for example you cannot hear the lecturer or they don’t write large enough on the boards, don’t wait until the Evaluation Forms are distributed... tell the lecturer! They want you to be able to understand what they are telling you, and may not realise there is a problem. They won’t bite!

**Evaluation forms** are handed twice a term in every module. An initial one near the start of the module for instant feedback to the lecturer about what problems there may be, and a more in-depth one near the end of the module which also allows comments on the back. Lecturers will see the results of these evaluation forms, as will the Head of Department and Director of Undergraduate Studies, and although the final forms will not effect that module, they are invaluable for improving future lectures so please do take the time to fill them in.

**Printed Lecture Notes:** Many modules will produce lecture notes for you to purchase from the Undergraduate Office, these are not an alternative to going to lectures. Many lecturers will go through additional material, or leave gaps in the printed notes for you to fill in, or at the very least give additional insight into the material. The golden rule however is that they are called ‘lecture notes’ because they are the notes that the lecturer lectures from. Don’t be surprised if most of what is written on the boards in lectures comes from these notes (but also don’t assume that everything they write does either). These printed notes will typically cost between 2 and 3 pounds for a full set of notes from a module, and they are available from the Undergraduate Office.

**Try the lectures, taste the module.** When it comes to choosing an optional module check out the Course Handbook entry, look up any books mentioned there, go to the first few lectures and then raise any queries with the lecturer to help you in deciding whether to take it. For Mathematics modules, the process of choosing is quite informal: you may have had to pre-register, but you can change at any time until your last chance to register for an extra module
by the end of week 2 in term 2. (When you decide not to take a module from another department for which you have pre-registered, you must notify the lecturer in charge, especially if there are tutorials or supervisions or lab sessions involved.)

There are so-called unusual options: there is nothing mysterious about these except that you need to fill in a form, collect the signatures of your tutor and the module organiser, then return the form to the Undergraduate Office B0.02 in Mathematics. Please be aware that timetable clashes may occur when you take List B options or unusual options. We try very hard to minimise them, but eliminating them altogether could only be done by cutting substantial sections from our very popular flexible system.

Lecture Observation and Peer Review

One of the procedures the Department uses to support the continuous development of individual teaching practice, and to ensure that teaching continues to be innovative, engaging and high quality is to use Peer Dialogue on Teaching, which is the observation of academic staff and their teaching practice by their academic peers. The procedure is particularly beneficial to identify good practice that can be shared amongst peers, as well as recognising opportunities for development and improvement.

From 2020/2021, all modules in the Maths department being delivered within an academic year will be included in the Peer Dialogue process. This process is required for all Academic staff and optional for Postgraduate Research Students who teach. It is managed by the Director of Education and student who have questions about this process should discuss this with the Director of Education in the first instance.

Please see the links below for further details:

Peer Dialogue on Teaching University Policy Statement

Year 1 regs and modules
G100 G103 GL11 G1NC

Year 2 regs and modules
G100 G103 GL11 G1NC

Year 3 regs and modules
G100 G103

Year 4 regs and modules
G103

Exam information
Core module averages

Personal Tutors

Your Tutor is your first contact on the University staff. He or she will want to get to know you as an individual, know how you are getting on, what is going really well for you, what problems you have and how you are dealing with them. Then he or she will know you well enough to write references on your behalf when you apply for a job, and to speak on your behalf at exam boards. Tutors can help overcome many of the major or minor problems of university life relatively easily, provided you bring them up in good time. When they can't deal with a particular problem, they can usually direct you to someone who can help. So make sure your tutor knows if you are ill, or in dispute with your landlord. But do tell him or her too if you have been elected to a responsible post in the Union or have made the cross-country skiing team.

You must see your tutor during the first week of each term so that we know that you are safely back. Details vary, but usually your tutor will want to see you on the first day of term. This meeting is often used to discuss which modules you are taking, registration formalities, and arrangements for tutorials. If an exam or other really unavoidable cause means you can't come when it is suggested, send an e-mail instead and call at the very first opportunity.

Academic work with your tutor. Your tutor is an academic member of staff who will expect to advise you about the choices in your course, and discuss mathematics in detail. In the first year you are likely to have group tutorials; you may also request individual ones. In later years, as modules become more specialised, you will probably receive most of your direct mathematical support from other sources; your tutor will be involved for some modules such as the MA213 Essay, and will continue to be your first port of call for general mathematical advice about module choices, etc.

Keep your appointments! If you are unable to attend a tutorial or supervision which has been arranged for you, don't leave someone wondering why you have not turned up. Send advance notice (e.g. by e-mail or telephone) that you will not be there. If (as in case of sudden illness) this is not possible, you need to send an explanation afterwards as soon as you can. (This is in your own interest as well as being basic courtesy. Remember that at the end of your course, prospective employers are likely to ask your tutor about your reliability and regularity of attendance. Your tutor's response will be one hundred per cent truthful.)
**Specialist tutors:** The Department has the following specialist tutors who have experience in answering questions and solving problems related to their specialist areas. Please make use of them in addition or in place of your personal tutors.

- Tutor for Women
- Overseas students’ tutor
- Maths/Business Studies degree representative
- Maths/Economics degree representative

Please ask in the Undergraduate Office for details of which staff member has each job and how to contact them (e-mail, phone or room numbers).

**Changing your tutor:** Occasionally a student does not get on well with his or her tutor. If this happens to you, you can easily change, and no offence will be taken. Simply ask the Senior Tutor in Mathematics or the Undergraduate Office, to assign you a new tutor. You will not be required to explain your reasons. Note, however, that you will not be able to choose who your next tutor will be!

---

**Year 1 regs and modules**

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
<th>GL11</th>
<th>G1NC</th>
</tr>
</thead>
</table>

**Year 2 regs and modules**

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
<th>GL11</th>
<th>G1NC</th>
</tr>
</thead>
</table>

**Year 3 regs and modules**

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
</tr>
</thead>
</table>

**Year 4 regs and modules**

<table>
<thead>
<tr>
<th>G103</th>
</tr>
</thead>
</table>

**Exam information**

**Core module averages**

---

**Supervisions**

Every first year undergraduate has a graduate (or 4th year MMath) student as supervisor. Groups of undergraduates see their supervisor regularly in Terms 1 and 2 and for 5 weeks of Term 3. Supervision groups coincide with tutorial groups, and you should find out from your tutor on your first day here who are the other members of your group.

Second years continue to receive supervisions in term 1 (8 meetings during the term).

**Aims of the supervision system:** The main aims are

1. to provide an opportunity for you to have written work marked and criticized, and thus get feedback on your progress;
2. to give you a chance to discuss the difficulties you are having with the modules, and
3. to put you in regular close contact with someone who handles on an everyday basis the mathematics you are learning.

**How do students make contact with their supervisors?** At the Supervision Fairs in the Mathematics Institute. You should make every effort to attend; if you do not, you may find that the remainder of your supervision group has agreed a time for supervisions which is impossible for you to make. The Supervision Fair will take place

- on the morning of Thursday of week 1 for First Year Maths undergraduates;
- second year undergraduates will be contacted by the supervisor in Week 2 by email or pigeon hole.

**When and where do supervisions take place?** It is left to undergraduates to arrange with their supervisors a mutually convenient time and place for supervisions. There are a large number of small areas with blackboards dotted around and about the department, but supervisions can take place anywhere else on campus. At the Supervision Fair you should arrange your supervisions for week 2, and for each subsequent week of the term. To do this, you will need to have made some progress towards choosing the optional modules you will take this term, and thus to fixing your lecture timetable.

**The structure of First Year supervisions.** The weekly supervisions will focus on written homework for the core modules. This homework counts for 15% of your final mark in each of these modules. It will be marked by your supervisor in the week when you hand it in, (which you do by putting it in the ‘pigeonloft’ outside the General Office before the advertised deadline) and given back at the next supervision. You and your supervisor will then go over this work, and sort out the difficulties it brings to light. Supervisors should be ready to deal with difficulties raised by the undergraduates themselves; they can also ask their undergraduates to make short presentations at the blackboard, or stimulate discussion by asking questions in the supervisions. In Term 3, besides going over written homework, most supervisors will encourage their undergraduates to try their hand at past exam questions, and will go over their solutions with them.
What more is there to say? Mathematics is not a spectator sport. The key to learning is doing mathematics yourself. The written homework is designed to get you doing this; the benefit you will get from working hard on the homework is far greater than the 15% of your mark that it can contribute. The same goes for supervisions. Don't expect your supervisor to have all the ideas or to make all the running. Come with questions of your own (and bring lecture notes and textbooks for the modules whose content you wish to discuss). Get together with the other members of your supervision group outside supervisions and decide together what you'd like to do in your supervisions. Ask your supervisor the questions that are bothering you, even if you are afraid that they might be "silly" questions. You will gain nothing by hiding your difficulties; they may not be as silly as you think.

Plagiarism: remember that although we encourage you to work together on your weekly assignments you MUST WRITE UP YOUR SOLUTIONS BY YOURSELF. If you copy your friends answers and hand them in, there is a strong possibility this will be noticed and the consequences could be severe (see Crime and Punishment).

However, as well as a possible penalty, if you cannot answer a question but copy it from a friend, your Supervisor will think that you understand it and will not then go through it with you in the Supervision! It is OK to hand in wrong answers, or half attempted ones... don't think you HAVE to hand in perfect solutions.

Finally, if there is any aspect of your supervisions that you are not happy with (and this goes for the marking of your written homework too), don't let matters slide; discuss it with your supervisor, your tutor, or, in the last instance, contact the Director of Undergraduate Studies, Dave Wood, whose responsibility it is to ensure the fairness and smooth running of the system.

Year 1 regs and modules
G100 G103 GL11 G1NC

Year 2 regs and modules
G100 G103 GL11 G1NC

Year 3 regs and modules
G100 G103

Year 4 regs and modules
G103

Exam information
Core module averages

Support Classes
(https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/support/supportclasses/)
Many lectures will have support classes associated with them. Especially core second year modules, and most third year modules. Support classes vary in appearance depending on the material, and in what way they support the lectures. Some will spend most of the time going over the assignments sheets (assessed or otherwise), and if these sheets are assessed it is usually the TA (Teaching Assistant) of the support class that marks them. Other classes will go over particularly tricky parts of the module, or additional examples that give a better insight.

Don't go to a support class expecting the TA to know what you have been struggling with, they will welcome feedback from you on what you would like help with and would probably be happy to receive an email to give them sufficient time to prepare. Also, make sure you are prepared: that you have attended the lectures beforehand, and have attempted the assignment sheets that are going to be covered. There is nothing worse, for a TA than 30 students sitting in silence in a room expecting to be spoon-fed answers to all the exercises that they haven't attempted yet.
What you can expect from the TA of your support class:

- They should turn up to the classes promptly and be well prepared.
- Due to the nature of employing TAs from postgraduate students the style and standard of the teaching may vary, but you should as a minimum expect the TA to be competent and prepared to answer relevant questions. In particular, most of the TAs will not be experts on the course they are covering so cannot be expected to answer questions outside of the material covered in lectures (although of course many will still do so).
- The TA will mark any assessed work and return marks to the lecturer promptly. The University expects all work to be returned within 20 working days of the submission deadline, but for support classes you should typically expect it to be returned within at least 2 weeks.
- If you have minor concerns about your support class (can't hear the TA, can't read writing, don't feel they're going over the things you need help with) then talk to the TA! Often this could be the first time they have taught a support class and would welcome any feedback that would improve their performance.
- If you have any serious concerns about your support class you should address complaints to the Director of Undergraduate Studies immediately.
- You are encouraged to email your TA with suggestions for topics you are particularly having problems with, but it is not the TAs job to email individual solutions to students. That is what the support classes are for.
- If the TA will unavoidably miss a support class they or the lecturer will notify you beforehand and if possible arrange a replacement class.

<table>
<thead>
<tr>
<th>Year 1 regs and modules</th>
<th>G100 G103 GL11 G1NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2 regs and modules</td>
<td>G100 G103 GL11 G1NC</td>
</tr>
<tr>
<td>Year 3 regs and modules</td>
<td>G100 G103</td>
</tr>
<tr>
<td>Year 4 regs and modules</td>
<td>G103</td>
</tr>
</tbody>
</table>

Exam information
Core module averages

Help and Advice

If things start going wrong, or you need some support then there is an abundance of help within the University and Department. If it is something serious and you need immediate help please contact Student Support Services (see below) or Security (22083) where appropriate. Otherwise the Undergraduate Office in the department is a good place to start, or your Personal Tutor, where they will be able to direct you to the best person to talk to further if necessary. Fiona Linton, the Undergraduate Programme Manager will often be able to help with immediate problems (her office is next door to the Undergraduate Office). If you have concerns don't keep them to yourself and suffer in silence.

The University's Student Support Services has a wide range of services on offer, which we may put you in touch with or you can access directly. In the latter case, if there is something affecting your studies do still let us know (by talking to the Undergraduate Office) so that we can offer additional support and advice or take into account as Mitigating Circumstances in the Exam Boards.

You may find this video helpful, and there is further information about who you can speak to in the Maths Department here.

Personal tutoring and support for students

The University of Warwick is committed to providing a supportive and positive environment for all members of its community and a high-quality student experience.

We recognise that there will be times in everybody's university life when things do not go as well as you would wish. In times like these, it's important to know that there is a comprehensive support and welfare structure available to help with all kinds of different problems.

The information accessible on, and from, this web page outlines the support services available to Warwick students. There may be more than one option available, so please use the information on this page, as well as the individual service websites, to help you decide the best place for you to go.

Support within your department - Personal Tutors

A personal tutor is an academic member of staff, assigned to each student on arrival at Warwick, who will act as the initial point of contact for discussion of academic and pastoral matters throughout a student's undergraduate and postgraduate career.
The Personal Tutor system at the University of Warwick is a vital and central part of campus life. Personal tutors and research supervisors, working in conjunction with the wide range of services available to students, are expected to provide such support, advice and guidance to students as may be necessary or appropriate to enable them to gain the most from their studies at the University.

Details on how the personal tutor system at Warwick should operate are outlined in the Personal Tutor Guidelines. We recommend that you consult these guidelines, as they represent the university’s official policy on personal tutoring. The following extract summarises the roles of the key figures in the university’s personal tutoring system:

The role of the **Personal Tutor**, who will be a member of academic staff, is:

- To assist students with the process of induction and orientation into University life and to retain an interest in their personal and academic development throughout their academic careers;
- To provide academic advice to personal tutees on their progress and development;
- To respond as promptly as possible to requests for help and advice about pastoral/non-academic matters insofar as s/he is competent to do so;
- To signpost and refer students on to professional University support services for further assistance if necessary;
- To signpost students to relevant careers/skills provision;
- To act as the student’s advocate when advocacy is needed.
- To act as a possible referee
- To keep a record of discussions and any agreed follow-up actions

The role of the **Personal Tutee** is:

- To be responsible for their own academic development and achievement by contributing positively to a productive working relationship with the personal tutor;
- To attend all arranged meetings and respond promptly to communications from their department;
- To inform their personal tutor promptly of any factors that might be impacting significantly on their ability to meet the requirements of their course, it being understood that personal tutors cannot advise and support students if they are unaware of such factors and that personal tutors are required to treat all information disclosed confidentially and to disclose to a third party only by agreement with the student;
- To be an active engaged member of their departmental academic community.

For more information about who your personal tutor is, you should contact the departmental secretary/administrator/undergraduate office for further information.

When should I see my personal tutor/supervisor?

- If you want feedback on your general academic progress.
- If you have enquiries about course regulations, e.g. choice of module options, understanding degree classification conventions
- If you are concerned about any issues you feel may be impacting on your ability to do your academic work effectively
- If you want advice on how to access specialist support e.g. on mental health, disability support, financial matters, study skills, career planning

What is the role of the Department Senior Tutor?

The role of the **Department Senior Tutor**, who will be an experienced member of academic staff, is:

- To be responsible for the effective operation of the personal tutor system in their department, including making sure that students know who their personal tutor is;
- To post personal tutor lists on the department’s website;
- To provide support and guidance to students if the personal tutor is unavailable;
- To facilitate a change of personal tutor if requested by a personal tutee
- To provide support and guidance to members of academic staff who are personal tutors;
- To consult with the Dean of Students about possible changes to the operation of personal tutoring in their department.

Other University support

As well as the Personal Tutor system, the University provides a comprehensive support network of specialised services. Each of the below services can be accessed via the Wellbeing Support Services website.

Wellbeing Support Services

- provide a range of services that can help you to develop the personal resources and skills you need to navigate the challenges and opportunities of student life

They offer support in a variety of ways.

First step: A brief consultation to help you identify next steps and decide on the type of support you may need such as:

- Self-help resources
Workshops
One-to-one appointments
Psychological interventions
Email counselling
Therapy groups
Mentoring

Their teams are ready to work with you:

The Wellbeing Support Team offers practical advice and emotional support for your wellbeing and help accessing other services.
The Disability Team offers support to manage the impact of a disability, including specific learning differences, mental health, autism spectrum and long term medical conditions.
The Counselling and Psychology Interventions Team offers a range of therapeutic interventions for students experiencing emotional or psychological issues.

If you would like to contact Wellbeing Support Services, please visit the Wellbeing Portal - wellbeing.warwick.ac.uk.

Office hours Mon-Fri 8.30am - 5pm (Fri until 4pm).
Brief consultations (available Mon-Fri 10am - 3pm).

Location: Senate House, ground floor
Website: warwick.ac.uk/supportservices
Tel: 024 7657 5570

The Dean of Students Office (and Faculty Senior Tutors)
- promotes the academic welfare of students

The Dean of Students is an academic member of staff whom you can turn to in confidence for support regarding difficulties with your studies e.g. changing course, withdrawing, appeals, difficulties with your department etc.

She is responsible for the personal tutor system.

Website: warwick.ac.uk/deanofstudents
Email: seniortutor at warwick dot ac dot uk
Tel: 024 7652 2761

The Residential Life Team
- work and live alongside students in halls of residence

The Residential Life Team works and lives alongside students in halls of residence and are a key part of the University’s welfare and support network. Contact your resident tutor in hall, if you have any difficulties or queries (from homesickness to accommodation problems, or anything else). If they cannot help you, they will refer you to someone else. If you do not live on campus, you can contact Wellbeing Support Services (as above).

Website: warwick.ac.uk/residentiallife

Health Centre - an NHS doctors' surgery on the University campus
- providing primary health care GP services to registered patients

Students registered with the Health Centre can make contact if they require a consultation with a doctor or nurse, an emergency appointment, emergency contraception, vaccinations or advice on vaccinations, or sickness certification.

Location: Health Centre Road - main campus
Website: uwhc.org.uk
Tel: 024 7771 0998

The Chaplaincy
- provides pastoral and spiritual care to all members of the University community, of all faiths and none

The Chaplaincy is the focus of Spiritual life on campus; it provides a meeting place for Christian, Jewish and Muslim prayer and worship. It is a focal point for different faith groups and student societies and offers a safe, supportive space at the centre of campus where people can "learn to live well together". Students of all faiths and none can come and find a friendly place to chat and eat. A chapel, three kitchens, meeting rooms and an Islamic prayer hall make the Chaplaincy an inclusive, spiritual and social space that welcomes the whole University community.

Location: Main campus
Website: warwick.ac.uk/chaplaincy
Email: chaplaincy at warwick dot ac dot uk
Tel: 024 7652 3519

The Students' Union Advice Centre
- provides an independent, free and confidential service for all Warwick students, offering information, advice and representation
Visit the Student Advice Centre if you have a housing problem (off or on-campus; University or private), have academic problems and difficulties such as exams, wrong course, appeals and complaints, have immigration problems - such as entry clearance, family members and working, have money, debt and legal difficulties, or are not sure who to talk to or where to get help.

Location: Main campus - SUHQ
Website: warwicksu.com/advice
Email: advice at warwicksu dot com
Tel: 024 7657 2824

Student Funding
- offers advice and guidance on all aspects of financial support
Visit Student Funding if you want to know what financial support you may be entitled to, want to know more about the scholarships and bursaries, are having difficulty paying for your day-to-day living expenses, or have additional financial needs because you are caring for a child or have a disability.

Location: Senate House
Website: warwick.ac.uk/studentfunding
Email: studentfunding at warwick dot ac dot uk
Tel: 024 7615 0096

Campus Security
- Working to provide a safe, secure and friendly environment for students, staff and visitors to the campus
The Campus Security team works 24 hours a day to support the University's overall aims by ensuring there is a safe, secure and friendly environment for students, staff and visitors.

Location: Campus Security Control Centre - staffed 24/7
Website: warwick.ac.uk/security
Email: security at warwick dot ac dot uk
Tel: 024 7652 2083

The International Student Office
- supports EU and international students both before and during their stay at Warwick
They are able to assist with immigration advice (on issues including visa extensions, working, dependant visas, travel visas etc), practical support (police registration, banking, bringing your family to the UK) and enhancing your student experience (induction events, social trips etc).

Location: University House, first floor
Website: warwick.ac.uk/internationaloffice
Email: global dot reception at warwick dot ac dot uk
Tel: 024 7652 3706

External Services
You might also find it helpful to access support from external agencies.
If you can't find the information you need, contact wellbeing at warwick dot ac dot uk or tel: 024 7657 5570.
If you require out-of-hours emergency support, please contact Campus Security on 024 7652 2222 or internal extension 22222.

---

Year 1 regs and modules
G100 G103 GL11 G1NC

Year 2 regs and modules
G100 G103 GL11 G1NC

Year 3 regs and modules
G100 G103

Year 4 regs and modules
G103

Exam information
Core module averages

Frequently Asked Questions
Can't see an answer to your question? Please email UGMathematics@warwick.ac.uk and we will endeavour to respond to your email as quickly as possible.

**General**
- I can't get to the UK before the official start date, what do I need to do?
- Can I do the year online?
- Will the Maths UG Office be open this term?
- What are monitoring points?
- When can I see the Taught Programmes Manager, Fiona Linton?
- Can I buy lecture notes/when will lecture notes be available?
- Do you have a lost property?
- Can I use or buy stationery?
- It's Wednesday, where is my banana?
- Can I use the ping pong table in The Street?

**MA1K2 Refresher Module**
- When does the module start/end?
- Where can I find the website?
- Is the module core?
- Is it assessed?
- Will the mark count towards my degree?
- Will the mark appear on my transcript?
- When should I start?
- How will I learn?
- Do I need to buy any books?

**Monitoring Points**
- What are monitoring points?
- Are there consequences of missing monitoring points?
- What if I cannot meet a monitoring point due to factors beyond my control, such as a family emergency?
- I have been incorrectly recorded as having missed a monitoring point. How can I get this fixed?

**Modules and Changing Course**
- What modules can I do?
- I don't like one of my module choices.
- Can I take a module from a different department?
- Can I change my degree course?
- I want to temporarily withdraw/permanently withdraw.

**Assignments and Supervisions**
- How do I hand in assignments and get my marked assignments back?
- Where are the supervision attendance and mark sheets?
- Where is my supervision taking place?
- Where is my supervisor/lecturer? The session started 15 minutes ago but nobody is there.
- Can I change supervision groups?

**Exams, Personal Tutors and Mitigating Circumstances**
- How do I submit Mitigating Circumstances?
- I submitted Mitigating Circumstances but I don’t know if it’s been taken into account.
- What are my Personal Tutor’s office hours?
- Can I change my Personal Tutor?
- When are exams? I’m going on holiday during term time and want to make sure it won’t clash with exams.
- My laptop is broken and this is impacting my ability to meet deadlines/engage in online learning. Is this good enough for an extension?
My laptop is broken and I can't afford a new one right away. I can't participate fully in online learning. What can I do?

Rooms and Building Access

- Where is X room?
- How do I get to the Mathematical Sciences (Stats) Building and when is the Stats UG Office (MB0.11) open?
- Has the Wellbeing Room been moved?
- Can I book a room or The Street in the department?
- When is the Finance office open?
- Who do I contact about IT equipment in the TCC room?
- Can I have the key for the Maths Society cupboard?
- Can you change my access?
- Can I put up this poster?

IT Services and Tech

- The printer in the computer room has run out of paper/there is a paper jam.
- How do I switch on the projector in MS.?
- Can I borrow the department projector/laptop/laser pointer?
- Where do I go for IT support?
- Where can I charge my laptop/phone?
- Do I need a password for wifi?
- Can you print this personal document for me?
- Where is a colour printer?
- I have lost my ID card, can you give me access?
- I am a Maths student and my ID card won't give me access during weekend evenings, can this be changed?

Forms, Transcripts and other Letters

- Can you sign my Erasmus form please?
- How do I get a copy of my Transcript?
- I need a Certificate of Status letter, can you do that?
- My assignment mark is wrong on Tabula/HEAR can you change it?
- Where is the police registration?

First Aid

- If I need a First Aider where should I go?
- I think I've been infected with COVID-19, I'm showing symptoms or someone I live with is showing symptoms. Do I need to inform the Maths dept?

Other Departments and Services

- Do I still have to pay student fees?
- Will academic staff strike this year like they have done in previous years?
- I have a question about Student Careers and Skills.
- I have a question about accommodation/student finance.
- How do I contact the SSLC?

Facilities

- The vending machine has taken my money.
- I have a facilities issue/have found something is broken.

Staff FAQs

- What do I do about monitoring points?
- I've forgotten the key to my office.
- I have to write a reference for a student, can I get their transcript/student file out of the cabinets?
- One of my personal tutees wants to know their ranking.
- Can I still come and get stationery from the stationery cupboard?
- Has my letter/parcel been delivered yet?

I can't get to the UK before the official start date, what do I need to do?
We are providing a more flexible approach to Term 1, please visit the guidance for new and returning students at the following link: https://warwick.ac.uk/coronavirus/students/arrival/.

Can I do the year online?
No, we believe the best possible university experience for our students comes from excellent face-to-face engagement, which is supported by online learning as well as personal contact. Please visit the COVID-19 teaching and learning guidance pages for students to find out more information, including how you will be taught at the following link: https://warwick.ac.uk/coronavirus/students/teaching/.

Will the Maths UG Office be open this term?
No, in line with Government guidance the Maths UG Office will be closed until face-to-face teaching in the department is allowed to resume. If you have a query, we do ask that you read through these FAQs carefully and refer to the information in the UG Handbook (https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/) first to see if your query can be answered there, before emailing the Maths UG Office at ugmathematics@warwick.ac.uk.

What are monitoring points?
The University requires all departments to monitor the attendance of students and report to the University regularly throughout the year those students whose attendance is a cause for concern. International students should be particularly aware of the consequences of missing monitoring points as the University is obligated to report to the UK Borders Agency if any student is found not to be engaging with and attending their degree course. For more information on monitoring points please go to: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/crime/.

When can I see the Taught Programmes Manager, Fiona Linton?
If you need to meet with Fiona, please email her directly at f.j.linton@warwick.ac.uk. As Fiona is unable to meet you in a socially distanced manner in her office, she will get back to you and may suggest an MS Teams meeting/a meeting in a larger available room within the Zeeman building.

Can I buy lecture notes/when will lecture notes be available?
For 2020/21, lecture notes will not be sold in the Maths UG Office and will be available online only. The notes will be made available on Moodle once the module leader releases them. Analysis 1 workbooks will be made available to students to collect, but you will still need to submit your workbook answers electronically.

Do you have a lost property?
If you have found any lost property/have lost something, please come to the Maths UG Office (B0.01) as we have a lost property box.

Can I use or buy stationery?
During COVID-19, we are unable to provide department stationery. The majority of assignment submissions for 2020/21 will be online, but please staple, holepunch etc. paper at home before you hand it in. Please also ensure you bring in your own pens. The Maths UG Office doesn’t sell stationery to UG students. You can buy stationery from Cannon Park or Rootes.

It's Wednesday, where is my banana?
Unfortunately, during COVID-19 the department is unable to run Banana Wednesday.

Can I use the ping pong table in The Street?
During COVID-19, the ping pong table is out of use.

When does the module start/end?
The module will run from 7th September 2020 until 2nd October 2020 (The exam and tests will be available for a few days after 2nd October but support for the module will stop on 2nd October, materials will be available to students for the foreseeable).

Where can I find the website?
https://warwick.ac.uk/ma1k2

Is the module core?
Yes, for all maths and joint maths first year undergraduates.

Is it assessed?
Yes, there will be two computer marked tests (25% each, pass mark 70%, can retake) and one self-marked exam (50%, cannot retake).

Will the mark count towards my degree?
No.

Will the mark appear on my transcript?
Yes.

When should I start?
As soon as you are able. There are 16 chapters, so we recommend spreading the work over a few weeks leading up to the start of term.

How will I learn?
There will be pre-recorded lectures, some self-study chapters and exercise sheets on each chapter for you to try. The module will be asynchronous (i.e. no live events) but there will be support on hand from a team of academics.

Do I need to buy any books?
No, but you might find it useful to consult the books you already have from your A-levels (or equivalent).

What are monitoring points?
All Warwick departments are required to monitor student attendance on undergraduate courses for various reasons, ranging from legal obligations to the protection of student welfare. Monitoring attendance at set points in time is a way for the Maths department to check your engagement with your course.

Over the academic year there will be 13 "monitoring points" for first and second-year students in the Maths department and 12 points for third and fourth-year students. Every time you are recorded as having missed a monitoring point you will receive an automated email.

Monitoring points will be recorded in Tabula, so you can view a top-level summary of your attendance for the year there. For more information please see https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/crime.

Are there consequences of missing monitoring points?
3 Missed Points: we will contact you to investigate whether you are having any problems that are preventing you from fully engaging with your course.

4 Missed Points: we may refer you to the relevant professional within the University welfare system who could help you, such as the Senior Tutor or the Counselling Service, as appropriate.

5 Missed Points: you will be contacted to make you aware that you are at risk of being recommended for termination of your registration at the University.

8 Missed Points: The Maths department can invoke Regulation 36 (see below link to the University Calendar) to begin termination of registration proceedings and your case is handed over to the Academic Office: https://warwick.ac.uk/services/gov/calendar/section2/regulations/reg36registrationattendanceprogress/.

It is especially important for international students to be aware of the above: The Academic Office is obliged to report to the UK Borders Agency if any students have been found not to be engaging with and attending their degree course.

If you have any questions or problems with any of this, please get into contact with UGMathematics@warwick.ac.uk.

What if I cannot meet a monitoring point due to factors beyond my control, such as a family emergency?
If you have any extenuating circumstances which may prevent you attending a monitoring point, please submit this information, along with any relevant evidence, to Tabula via the Mitigating Circumstances ribbon.

I have been incorrectly recorded as having missed a monitoring point. How can I get this fixed?
If you have been incorrectly recorded as having missed a monitoring point, please email UGMathematics@warwick.ac.uk to ask for the record to be corrected. Please include any relevant evidence (such as an email from your personal tutor if the monitoring point relates to a personal tutor meeting).

What modules can I do?

In Year 1 and Year 2, students must take core modules, plus options. Module registration (and deregistration) is done online via MRM. Core, List A and List B modules you choose will be approved immediately online, for Unusual Options please see below. For a full list of modules available to you and their CAT load, please see the UG Handbook: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/. The minimum load in each year is 120 CATS. There is more information on course regulations at the following link: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/regulations. It is also important to consider prerequisites for modules available in later years.

I don't like one of my module choices.
You can deregister from an optional module, up to the deadline: **End of the last week of Term 2 for modules examined in April, Start of the first week of Term 3 for modules examined in May/June.** You may not be allowed to deregister from a module for which you have submitted (or should have submitted) work counting for more than 10% of the credit for that module (although this rule would normally be ignored for Maths modules). There is more information on module deregistration at the following link: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/assessment.

**Can I take a module from a different department?**

Yes, we call these **Unusual Options.** Unusual Options can also include modules normally available to students in another year only, but only if there are good educational grounds for it. You will need to submit your choices online via MRM and complete the online Unusual Options Request Form at the following link: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/options/unusual/request. Before submitting your Unusual Options requests, you need to obtain the agreement of 1) the module organiser and 2) your Personal Tutor. The form needs to be submitted by the end of Week 2 of the term the module is taught in. Unusual Options are subject to the approval of the Director of Undergraduate Studies once you have submitted the form. There is more information and some general rules to consider when choosing Unusual Options at the following link: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/course/options/unusual.

**Can I change my degree course?**

Yes, you can change your degree course within and outside of the Mathematics department, if you have taken the necessary prerequisite modules and subject to the approval of the Director of Undergraduate Studies. You should first discuss your options with your Personal Tutor, who will be able to advise you. Then you will need to login to e:Vision and select Student Records Requests and then Create Course Transfer Requests. If you wish to transfer to a course outside of the Mathematics Department then you will need to talk to the department you wish to transfer to as well. There is more information on course transfers at the following link: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/transfers/.

**I want to temporarily withdraw/permanently withdraw.**

Before requesting either temporary or permanent withdrawal, you must talk to your Personal Tutor, Year Tutor, Senior Tutor, Director of Student Experience or the Taught Programmes Manager. After discussing your options with one or more of the above, if you would still like to proceed with TWD/PWD, you will need to login to e:Vision and select Student Records Requests and then either Create Temporary/Permanent Withdrawal Request. Once you have filled out all the relevant information and submitted your request, you will be able to see a progress bar to track the progress of your request.

**How do I hand in assignments and get my marked assignments back?**

You will need to submit assignments online via Moodle. Marks and feedback will be made available to you on Moodle once all marking for the assignment has been completed. If it has been longer than 2 weeks and you still haven't had your assignment back, please contact the TAs for the module.

**Where are the supervision attendance and mark sheets?**

Supervision attendance and mark sheets can be found online.

**Where is my supervision taking place?**

Your supervisor will contact you and your supervision group to arrange where and when your supervision will take place. Supervision groups will usually take place in the Zeeman building, although due to social distancing restrictions in place for 2020/21 some supervisions may be located outside of the Zeeman building, depending on available suitable space.

**Where is my supervisor/lecturer? The session started 15 minutes ago but nobody is there.**

If your supervision or lecture has been moved to a different time, location or cancelled for any reason then the supervisor or academic should email you directly to let you know.

**Can I change supervision groups?**

Due to current COVID-19 guidelines, requests to change supervision groups will need to be considered on a case by case basis and are only likely to be approved under exceptional circumstances. Should you feel your request to change supervision groups fall under this category, you should contact the Director of Undergraduate Studies or the Taught Programmes Manager.

**How do I submit Mitigating Circumstances?**

You will need to login to your Tabula account and select the Mitigating Circumstances tab. If you follow the instructions and input all the necessary information including a scanned copy of any relevant documents e.g. Dr's note, and submit your claim.

I submitted Mitigating Circumstances but I don't know if it's been taken into account.

Please contact either the Taught Programmes Manager, Fiona Linton or your Personal Tutor via email with any questions relating to your Mitigating Circumstances.
What are my Personal Tutor’s office hours?
We do not keep a central directory of Personal Tutors’ office hours. You will need to check their page in the staff directory or email them directly: https://warwick.ac.uk/fac/sci/maths/people/staff/.

Can I change my Personal Tutor?
Requests to change Personal Tutor are considered on a case by case basis and may not always be possible. If you would like to discuss changing your Personal Tutor, you should contact the Senior Tutor in Mathematics or the Maths UG Office. Please note you will not be able to choose who your next tutor will be.

When are exams? I’m going on holiday during term time and want to make sure it won’t clash with exams.
We’re not certain of exam dates until timetables are released, so we advise against booking holidays or flights until you are certain of your exam timetable. Pre-booked travel is not usually accepted as Mitigating Circumstances for missing an assignment, assessment or examination.

My laptop is broken and this is impacting my ability to meet deadlines/engage in online learning. Is this good enough for an extension?
IT issues are not usually accepted as reasons for late submission of work, however extension requests are considered on a case by case basis. You should contact your Module Leader or the Maths UG Office in the first instance to discuss this.

My laptop is broken and I can’t afford a new one right away. I can’t participate fully in online learning. What can I do?
As a special measure during Covid-19, students without a working computer can request a loan laptop during the current assessment period. For more information contact the IT Services Help Desk at https://warwick.ac.uk/services/its/services/support/helpdesk. There is no charge for this service. Alternatively, if you are a home fee-paying undergraduate student or a Sanctuary Scholar who is struggling to meet the cost of the IT equipment you need to undertake your course, then you may be eligible to apply for a non-repayable IT Support Bursary of £600. For more information, visit the IT Support Fund at the following link: https://warwick.ac.uk/services/academicoffice/funding/hardshipfunds/ftfunds/itbursary.

Where is X room?
You can find a room location by using the interactive campus map: https://warwick.ac.uk/about/visiting/maps/interactive. Please note there are duplicate room names across campus (e.g. B2.02,3), so make sure to arrive early to ensure you are in the right place.

How do I get to the Mathematical Sciences (Stats) Building and when is the Stats UG Office (MB0.11) open?
If you exit the Zeeman building and turn right at the Red Rocket van, you will find the entrance to the MS building on your right hand side. The Stats Support Office is normally open from 0930-1230 and 1400-1600. During COVID-19, please email the UG Office first to see if your enquiry can be dealt with online at: stats.ug.support@warwick.ac.uk.

Has the Wellbeing Room been moved?
The Wellbeing Room has been temporarily closed due to COVID-19. If you are struggling, please get in touch with the Wellbeing Support Services: https://warwick.ac.uk/services/wss.

Can I book a room or The Street in the department?
During COVID-19, most rooms will be reserved for the use of module-related activities, meetings and supervisions. You may be able to book a room via Sheetal Sharma (sheetal.sharma@warwick.ac.uk) for small group activities. The Street is not available for bookings currently.

When is the Finance office open?
Please contact a member of the Finance Office, either Monika Plitt, (M.Plitt-Milewska@warwick.ac.uk), Debbie Walker (WalkerDeborah.Walker@warwick.ac.uk) or Leanne Bezuidenhout (L.Bezuidenhout@warwick.ac.uk).

Who do I contact about IT equipment in the TCC room?
The Maths UG Office is not responsible for the TCC room. Any queries with the day-to-day running of the room should be directed to one of the University of Warwick representatives at the following link: https://www.maths.ox.ac.uk/groups/tcc/tcc-setup-information.

Can I have the key for the Maths Society cupboard?
No, it is the society's responsibility to look after/organise who has the key.

Can you change my access?
If you email ugmathematics@warwick.ac.uk with your name and student ID number, we can have a look at your current access. Access is automatically applied to your student ID card that relates to your course, the likelihood is you already have the correct access.

Can I put up this poster?
Yes, if it is appropriate e.g. promotes societies at the university, relevant upcoming events. Please also remember to take down the posters after the event has taken place. During COVID-19, please ensure any posters promoting events are either virtual or that you adhere to the 2m social distancing guidelines (please be mindful of the 2m SD rule when putting posters up).

The printer in the computer room has run out of paper/there is a paper jam.

Computer room printers in A0.01, A0.02 and A0.03 are centrally managed and are maintained and restocked by the central IT team. Once the printer is out of paper or there is a technical issue, the IT team is informed automatically. For printers within the Mathematics department, please email the room location and issue to the Maths UG Office (ugmathematics@warwick.ac.uk) and a member of the team will resolve the issue.

How do I switch on the projector in MS.?

Any issues with AV equipment in Centrally Timetabled Rooms, please contact the Audio Visual department at: https://warwick.ac.uk/services/its/servicessupport/av.

Can I borrow the department projector/laptop/laser pointer?

No, during COVID-19 you will not be able to borrow stationery or electrical equipment.

Where do I go for IT support?

For any IT issues, please visit the IT Services Help Desk: https://warwick.ac.uk/services/its/servicessupport/helpdesk.

Where can I charge my laptop/phone?

You should be able to charge your laptop and phone in the University library. During COVID-19, many dwell spaces with powerpoints nearby will be being used for teaching, or will have limited capacity for usage, in line with social distancing guidelines so please try and charge any electricals at home.

Do I need a password for wifi?

Yes, the internet on campus (Hotspot Secure) can be accessed by using your IT login information.

Can you print this personal document for me?

No, you should use the centrally managed printers to print off documents.

Where is a colour printer?

Coloured printers can be found in the central University library.

I have lost my ID card, can you give me access?

If your Student ID card is lost or stolen, please report it via the following link: https://warwick.ac.uk/services/universitycards/report and visit the Card Office at University House who will be able to create a replacement card for you.

I am a Maths student and my ID card won’t give me access during weekend evenings, can this be changed?

No, access to the building in the evenings and at the weekend is restricted to staff only.

Can you sign my Erasmus form please?

Either Anca Kranenbourg (B0.01) or Marco Schlichting can sign your Erasmus form.

How do I get a copy of my Transcript?

You can access a copy of your own Transcript through HEAR. Please go to https://warwick.ac.uk/services/academicoffice/studentrecords/records/hear and follow the instructions.

I need a Certificate of Status letter, can you do that?

No, the Student Services Reception in Senate House can provide you with a Status letter. For more information visit the following link: https://warwick.ac.uk/services/reception.

My assignment mark is wrong on Tabula/HEAR can you change it?
Email the Maths UG Office at: ugmathematics@warwick.ac.uk stating your name, student ID, the module in question and what you believe the correct mark to be and we will be in touch either asking for evidence or to say the error has been corrected.

Where is the police registration?
For more information regarding police registrations, please visit the following link: https://warwick.ac.uk/study/international/immigration/current/police

If I need a First Aider where should I go?
The Taught Programmes Manager, Fiona Linton and the Department Administrator, Jen Bowskill are the first aiders in the department.

I think I've been infected with COVID-19, I'm showing symptoms or someone I live with is showing symptoms. Do I need to inform the Maths dept?
If you show symptoms of COVID-19, you will need to contact the University via the COVID-19 helpline on 024 765 23111 and follow the guidance to self-isolate noted in the following page: https://warwick.ac.uk/coronavirus/safety/coronavirus. Please also contact your Personal Tutor or the Maths UG Office and inform them of your situation.

Do I still have to pay student fees?
Can I withhold my tuition fee? The University continues to support all students in achieving their desired learning outcomes. As such, you will be expected to pay your fees. We appreciate this is an exceptional time, but it is important that you continue to pay your tuition fees by the published due date. For further queries about this, please contact the Student Finance Office at: https://warwick.ac.uk/services/academicoffice/finance.

Will academic staff strike this year like they have done in previous years?
We don't know unfortunately, if academic staff do strike the department will keep you updated.

I have a question about Student Careers and Skills.
The departmental Careers Consultant is Raymond Ryan and individual appointments can be booked with him. Please visit the following link for more careers information and booking details: https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/careers/.

I have a question about accommodation/student finance.
The Student Services team based in Senate House can help with questions regarding accommodation and student finance. For a full list of services provided at Senate House, please go to the following link: https://warwick.ac.uk/services/reception.

How do I contact the SSLC?
Each department in the University has an SSLC that feeds into both the Students’ Union and the University administration. For more information visit: https://moodle.warwick.ac.uk/course/view.php?id=20202.
There is also a big SSLC noticeboard in the Street where you can find more information.

The vending machine has taken my money
The Maths UG Office isn't responsible for the vending machines, you will need to ask the Library Cafe for a refund.

I have a facilities issue/have found something is broken.
If you would like to report something as broken/need repair, please contact the Estates Service Desk at the following link: https://warwick.ac.uk/services/estates/service_centre.

What do I do about monitoring points?
More information about the monitoring points scheme for 2020/21 can be found online at the following link: https://warwick.ac.uk/fac/sci/maths/intranet/staff/personaltutor/. This includes guidelines on the responsibility and process for logging each monitoring point.

I've forgotten the key to my office.
Please email the UG Office to request a key to your office, listing the room number and we will be in touch with a designated time you can pick up a spare key from B0.01a.

I have to write a reference for a student, can I get their transcript/student file out of the cabinets?
If you need a student file, please email the UG Office. They will locate the file and let you know when you can come and pick it up via a dropbox in B0.01a. You can come into the UG Office during a quiet period when the office is open and ask us to retrieve the student file for you, but please ensure you adhere to social distancing guidelines when doing so and be mindful of the queue system we will have in place.
One of my personal tutees wants to know their ranking.

As a Personal Tutor this is something a tutee may request and requires your academic input as their Personal Tutor, it is not something done by the UG Office. Dave Wood as Director of Undergraduate Studies, or Richard Sharp as Senior Tutor may be able to help you with this if you are unsure, but in general we do not have official rankings and students should be placed in quartiles.

Can I still come and get stationery from the stationery cupboard?

If you need any stationery please email the UG Office at UGMathematics@warwick.ac.uk and we will create ‘packages’ with your name on and leave it by the printer in B0.01a for you to collect (room attached to the Maths UG Office).

Has my letter/parcel been delivered yet?

During COVID-19 we ask that you only have work related letters/parcels delivered to the department. Personal items, especially those requiring a signature should be delivered to your home address. Work related post delivered to the department will be placed in your pigeonhole by a member of the UG Office team. Please do not come into the UG Office looking for letters/parcels, as we are trying to decrease footfall and maintain social distancing.

Staff Roles in Maths

There are a number of different staff that you can seek support and guidance from in the Department- below is a list of the staff, and their roles and responsibilities to help you identify the best person to speak to;

**Personal Tutors**
- Initial point of contact for discussion of academic and pastoral matters.
- To assist students with the process of induction and orientation into University life and to retain an interest in their personal and academic development throughout their academic careers.
- To provide academic feedback and advice to personal tutees on their progress and development.
- To respond as promptly as possible to requests for help and advice about pastoral/non-academic matters insofar as they are competent to do so.
- To signpost and refer students on to professional University support services for further assistance if necessary.
- To signpost students to relevant careers/skills provision.
- To act as the student’s advocate if required.
- To act as a possible referee.
- To keep a record of discussions and any agreed follow-up actions, particularly in relation to confirmed monitoring points.

**Tutor for Women**

Dr Susana Gomes

In instances where students would prefer to speak with a female member of academic staff instead of their Personal Tutor, our Tutor for Women is available to act in this capacity. Students can contact our Tutor for Women directly to ask for a meeting, or can do so via the Senior Tutor or Taught Programmes Manager.

**Year Tutors**

Year One- Dr Adam Epstein

Year Two- Dr Dmitriy Rumynin

Year Three and Year Four- Professor Richard Sharp

**Senior Tutor**

Professor Richard Sharp

- Responsible for the effective operation of the personal tutor system in their department, including making sure that students know who their personal tutor is, in liaison with the Taught Programmes Manager.
To assign tutees to personal tutors at the start of each academic year.
To provide support and guidance to students if the personal tutor and year tutors are unavailable.
To facilitate a change of personal tutor if requested by a personal tutee.
To provide support and guidance to members of academic staff who are personal tutors.
To provide support and guidance to the Year Tutors.
To ensure that Department practices for Personal Tutoring are in line with Institutional Guidance and best practice, in liaison with the Taught Programmes Manager.

Director of Student Experience
Dr Siri Chongchitnan
- UG SSLC convenor and member of the SGSLC.
- Outreach to prospective students, open day and offer holder open days.
- Welcome Week planning and support.
- Working with personal tutors to support the transition into higher education and to help optimise the mechanism for pastoral and academic support in the department
- Alumni support
- Liaison with student careers and skills to promote employability.

Careers Link Officer for Mathematics
Ray Ryan is the departments senior careers consultant and he provides impartial and confidential careers information, advice and guidance to help students make effective career decisions. Careers appointments can be arranged with Ray, either in room C1.06 or in the University House Learning Grid through the careers portal My Advantage https://myadvantage.warwick.ac.uk/ Ray can also be contacted at r.ryan@warwick.ac.uk

The appointments can be used to discuss any aspect of your career planning, particularly if you are feeling uncertain and don't know how to make a career decision. Appointments can also be used for example to:

- Review applications for internships, graduate jobs and post graduate courses
- Practise mock interviews
- Prepare for assessment centres
- Discuss how to gain the employability skills graduate recruiters require through work experience and extra-curricular activities

Ray also organises an annual careers fair to raise students awareness of career options with a mathematics degree as well as a series of presentations from mathematicians who illustrate how maths is used in the workplace.

Computers and LaTeX
Computers, e-mail, TeX and word-processing
The ability to communicate via a keyboard is what makes humans different from other animals.

You are given a computer account when you join the University.

You need to log on frequently - several times a week - to check your mail, because that's one of our main ways of communicating with you. If you are not receiving the messages addressed to your year of Mathematics students, tell the Undergraduate Office in room B0.02 (so that they can check you are a member of the alias used).

If you forward your University email to another account (e.g. gmail) then it is your responsibility to make sure that you are still receiving important emails from the department and they are not being deleted as spam.
We give you every encouragement to use a word-processors, for example writing essays, for assessed work in other departments, and for business letters such as job applications. But there are also specialised packages for writing mathematics.

The best way to typeset your work is using TeX, which (together with its macro packages LaTeX and AMSTeX) is now the standard computer language for typesetting mathematics, and will be around in the scientific world for decades to come. You input a text file of Roman letters, describing mathematical symbols and components of equations in terms of control sequences (such as \alpha or \matrix), which is typeset by TeX and written to a file which can be printed out. The majority of printed lecture notes and assignment sheets will be typeset by LaTeX.

There is a useful guide written by one of our students on installing and starting to use LaTeX on your own computer which can be found here. The manuals on LaTeX by L. Lamport, and on Word, are available in the SRC in the Library and there are many introductory webpages on getting started with LaTeX online. Beware of spending too much time learning the intricacies of your chosen system. It may be fun, even addictive, but it is not mathematics.

Please also see resources given in the Second Year Essay pages for other places to get help.

NOTE: Keep backups of any important work that you store on your computer/laptop/tablet. If you lose work through theft of your device or software/hardware faults you will not be able to ask for extensions or special dispensation. These days backing up is easy through memory sticks, online storage or simply emailing it to yourself. There is no excuse.


The process of learning mathematics

University modules go much faster than A-level teaching. (They make the sixth form seem like a lazy idyll in lotus-land.) Therefore beginning a Mathematics degree is always a shock. We ease the transition for you by taking the first year gently, but it’s still easy to fall at any stage into the trap of doing too little work.

**Work at those exercises!** It is essential to back up every hour of lecture time with at least one hour of private study on the same topic. (Your social or sporting life is important too - nobody denies that - but if you don't limit those pleasant activities, expect only a third-class degree.) When you get an example sheet, the ideal is to do all the exercises within a week, by your own effort. Only the best students will manage this all the time. Often there are Sections A, B and C on an example sheet. Section A is the most straightforward, Section B is slightly harder, and contains the exercises for handing in, while Section C contains exercises that go a little further afield. Some of these are quite hard, while others touch on topics that stray from the syllabus, but that the lecturer couldn’t bear to leave out. But you can tell you’re really falling behind if you don’t even try to do all the questions in Section B! You should certainly do all the questions which you are asked to hand in. (Marks on written assignments tend to average around 70%; be aware that examination questions may be rather harder.) Discuss with the people in your supervision group, or with friends from lectures, those questions which you (or they) can’t do. If you are really stumped by a large proportion of the exercises, talk about it to your tutor, who may well be able to help.

**Solving is winning.** “Each time you succeed with a problem, you have won a small victory over the mathematics.” It boosts you psychologically, and your mind stores the mathematical ideas involved without the pain of rote-learning.

**Mathematics is not a spectator sport.** It’s tempting to ask your supervisor to show you how to work out the problems. But it only does a tenth of the good. “Oh, YES, now I see” - but have you really learned anything? Given the same type of problem two weeks later, you may well have forgotten. Some lecturers prepare solutions for posting on the web. Usually only the solutions to Section B are given. If, before hearing how to do a problem, you had worked on it by
yourself or with a friend, you'd be much more likely to take it in. Working on a problem yourself helps to make nets for catching ideas with. If you haven't
done the work, the ideas just fly right by you.

"I [don't] understand" can be misleading. How often have you said something like. "I understood everything she said in that lecture"? Doubtless she's an
excellent and popular teacher. But can you do the exercises she set you? If not, sorry, but you don't really yet understand what she said. On the other hand, if
you can do the questions for some module, then you are understanding it (and so you needn't worry too much).

Mathematics takes time to absorb. The absorption takes place as you do your written work. So write early and write often.

Files and ring-binders are hopeless at learning mathematics. Don't collect printed notes and store them away in a file. Air them, read them, discuss them
with your friends, your supervisor, your tutor. Ask the lecturer questions too: he wants to share his enthusiasm with you. Talking mathematics makes it live.
Then read your notes again - and then see how any remaining problems have become more transparent.

Personal organization and work

Your most important resource, which to get a good degree you need to draw heavily on, is your own effort and determination. Try to be reasonably
organised and systematic. Try to keep on top of your work. Most of your time is not scheduled by the university, but when exams loom you'll find you wish
you had done more work earlier. Many maths students found it possible to revise for A-level modules in the few days before the exam, but this is usually a
disastrous strategy for university modules. Modules cannot be learnt in a week. You need time to think about the theory and practice on examples.

If you have problems understanding things, ask people: other students (in your own or higher years), your supervisor, your tutor, the lecturer.

Study Skills. New students (and some experienced ones too!) may need to build up their study skills to get the best out of the effort they put in to their
work. The university library keeps books on study skills under LB1049 or LB2395; you are encouraged to spend some time looking at these. We
recommend books by W. Cassie, R. Freeman, A. Howe, L. Marshall and A. Northedge, and the pamphlet, D. Burkhardt (Ed.), Study Skills in Mathematics. This
last contains some good hints on problem solving, and you will get more from G. Pólya, How to Solve it.

Preparing for Exams. On starting a module, your first target is to absorb the lectured material and the lecturer's problem sheets. Later in the term, and in
the run-up to the exam, test yourself out on past exam papers, which give a good indication of the standard expected.

In the third term, many lecturers give a revision lecture on their module, which should help you see its overall structure.

There's no point in trying to guess what will be on the exam paper - it may or may not be related to last year's paper, or to hints you think the lecturer
dropped, and it's extremely unlikely to be related to the silly rumours that sometimes develop in the heat of Term 3. Rather than worrying about what will
be on the paper, you're better off thinking through the material of the module, and making sure you know what the theory means in practical problems such
as those on the example sheets. Even if you don't have much time, there's just no point in trying to memorise your notes; aim to analyse a corner of the
theory, and work it all out in a case you can understand.

The University Library

In the Student Reference Collection (SRC) you will find copies of the most useful textbooks for undergraduate study, with very restricted borrowing to
make sure that they are available to the largest possible number of people.

In the main part of the University Library is an excellent wider collection of mathematics books. Get into the habit of browsing - books contain all sorts of
interesting things! If you don't understand part of a module, try to find the material in a book. Learn how to track down books on a particular topic by
browsing, using the library online catalogues and the review journals, guessing, and, when all else fails, searching physically through large numbers of books.
You can't be a serious academic or scientist without detective work in libraries, and although resources available on the Internet are easier to locate there is
still no substitute for browsing books.

During your first week at Warwick you should make yourself familiar with the Central Campus Library, there are excellent resources on their website to
introduce you to the facilities available. If you need further help during your course, ask at the Enquiry Desk on Floor 1 during office hours, consult the
printed guides and leaflets available on each floor or contact the Library's Science Team. Helen Ireland (email: H.Ireland@warwick.ac.uk) is the Subject
Librarian for Mathematics and the departmental library representative is Sheetal Sharma. Contact either of them about any books which you feel ought to
be in the Library, or if there are not enough copies of key texts. (Library matters can also be raised at SSLC meetings.)

You can also find books in the University bookshop as well as well-known online retailers! We do not expect you to buy your own copies of textbooks, but
for some modules you may find it useful to do so, especially modules that you may find yourself struggling on. Standard maths textbooks will typically be
around 40 pounds to buy from new, but cheaper copies can be found online second-hand (Amazon is good for this), or sometimes you can find students from
higher years selling their old copies through the Student Union. Warwick has an arrangement with Blackwell's that includes a price match guarantee.

The Mathematics Society: WMS

The Maths Society (WMS) offers opportunities for involvement in both academic and social activities. Although officially a society of the Students Union it
also has close links to the department.

They publish guides to the more difficult and important modules for the benefit of first year students. They also arrange extra informal tuition by second
and third year students, in addition to official supervisions. They also hope to provide an introductory course and guide to LaTeX, the popular computer
typesetting package for maths, which is invaluable for writing essays and projects.
Funding and Opportunities

Opportunities and funding that may appeal to Mathematics Students:

Warwick In Schools (WinS)

Previously the SAS scheme, this programme is open to students registered for IE3E1 Introduction to Secondary School Teaching.

“WinS introduces students to teaching as a career by placing students in schools and providing training to prepare them for working with young people.

There is information on the very popular scheme at the website https://warwick.ac.uk/fac/soc/cte/professionaldevelopment/wins/

Warwick In Africa

WinS students will be eligible to apply for a place on the Warwick in Africa Project in the summer of 2019. Previous years students have taught in schools in South Africa, Tanzania and Ghana over July and August every year. This is a project supported by Giving to Warwick that started over 10 years ago with a handful of Mathematics undergraduates going out to South Africa, the success of which has led to the scheme expanding to more countries with support for African teachers as well as students.

This is a once in a lifetime opportunity! See the website for more background http://www2.warwick.ac.uk/giving/community/wia

Application information will be available in December, through the WinS Training Sessions.

The Institute for Advanced Teaching and Learning (IATL)

The objective of the Institute for Advanced Teaching and Learning is to help shape teaching and learning across the University and disseminate, embed and raise the profile of new approaches and successful innovation. It aims to promote student engagement wherever possible. Its focus is

- Academic literacy
- Engagement with global culture
- Interdisciplinary activity
- Performance-based learning
- Research-led teaching

IATL has funds for various activities, with deadlines throughout the year under their “Student as Producer” moniker including “Research Grants” and “Performance Grants” as well as money from their “Collaboration Fund” for joint projects between staff and students. Don’t be put off by the names which suggest a theatrical bent, there have already been some successful Mathematics projects and there is another one taking place during the 2014/15 academic year.

More information on the funds can be found at http://www2.warwick.ac.uk/fac/cross_fac/iatl/funding/

The Undergraduate Research Scholarship Scheme (URSS)
Every year we have a number of students on this scheme spending the summer working on a research project with a member of staff. It pays a modest bursary to allow students to spend their summer having a go at research and has proved very popular in the past. You will need to find a member of staff willing to supervise, sometimes staff members will take the initiative and actively advertise to students, other times it has been the student’s initiative to find someone.

Departmental information on the scheme including departmental affiliation can be found [here](https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/opportunities/urssmaths/).

University information can be found at [http://go.warwick.ac.uk/urss](http://go.warwick.ac.uk/urss)

Deadline for applications is usually around the 1st February.

**The London Mathematical Society (LMS) Undergraduate Research Bursaries**

This is an alternative national scheme to the above which is more generous, but is more competitive and has a longer application form (to be completed by the member of staff concerned).

Deadline for applications is again usually early February every year.

More information can be found here [http://www.lms.ac.uk/grants/undergraduate-research-bursaries](http://www.lms.ac.uk/grants/undergraduate-research-bursaries)

**Lord Rootes Memorial Fund**

The Lord Rootes Memorial Fund is intended to encourage personal development by supporting challenging projects proposed by individual and groups of Warwick students, especially projects:

- involving observation and the intelligent use of experience in the scientific, cultural, environmental or business context.
- demonstrating creativity of thought and the development of an original and personal idea or objective.

More information at [http://www2.warwick.ac.uk/insite/topic/teachinglearning/rootes](http://www2.warwick.ac.uk/insite/topic/teachinglearning/rootes)

### Year 1 regs and modules

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
<th>GL11</th>
<th>G1NC</th>
</tr>
</thead>
</table>

### Year 2 regs and modules

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
<th>GL11</th>
<th>G1NC</th>
</tr>
</thead>
</table>

### Year 3 regs and modules

<table>
<thead>
<tr>
<th>G100</th>
<th>G103</th>
</tr>
</thead>
</table>

### Year 4 regs and modules

<table>
<thead>
<tr>
<th>G103</th>
</tr>
</thead>
</table>

### Exam information

### Core module averages

### URSS and Department Affiliation

[https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/opportunities/urssmaths/](https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/opportunities/urssmaths/)

URSS has become increasingly popular over recent years. Around 15-35 maths undergraduates participate each year, each supervised over about 6-10 weeks in the summer vacation by a member of staff. This includes students who are funded by the department. **The (extended) deadline is Sunday 12th January 2020**, but you should not leave applications to the last minute. There is one on-line application form and students and supervisors will have to work together to complete the form.

URSS has multiple purposes including enabling undergraduate students to enhance both their research and transferable skills in a wider community, making the experience invaluable for a range of both academic and non-academic careers.

### Examples of Projects in Mathematics

These can generally be found by ticking the “mathematics” box on the link below. Details of these projects are included to varying degrees. Note that projects since 2016 are not available: [http://www2.warwick.ac.uk/services/scs/experience/urss/archive](http://www2.warwick.ac.uk/services/scs/experience/urss/archive)

### Affiliated Department Funding and LMS

As in recent years, the department will try to fund good applications (capped at £1,000) by maths students that do not get funded by the University. This also applies to any applications for the LMS scheme ([http://www.lms.ac.uk/grants/undergraduate-research-bursaries](http://www.lms.ac.uk/grants/undergraduate-research-bursaries)). Those students funded by the department have to fully engage in the university URSS scheme as a condition of the departmental funding.
For Students

- Students should approach staff to supervise a summer project after it is advertised by the University.
- Students who leave it to the last week before the URSS deadline of 12 January are however much more unlikely to be successful in finding a project supervisor.
- All students must apply for a URSS award to be eligible for department funding.
- We strongly encourage applications from female students as part of the Department’s commitment to the Athena Swan principles, in particular addressing the under-representation of women at all levels in mathematics.
- All successful URSS applicants (including those who are funded by the department) must fully engage with all elements of the URSS process and experience.

Application Form for Students and Supervisors

The application form for URSS and the student and staff guidance are available from the linked URSS page.

The Application Review Process section in both the staff and student guidance lists the assessment criteria:

1. Personal/Career Impact
2. Quality
3. Research Culture
4. Research Impact
5. Value for money

Please complete the application form carefully with this in mind to maximise the chances of a successful application.

Please note the following:

- If you do not know the exact dates for the project, please put indicative dates for the appropriate length of time.
- A realistic and thorough funding breakdown is required on the form (see below). Amendments cannot be made to a form once it has been submitted.

Funding breakdown required on the application form

The following extract is from the URSS student guidance:

* "You will have your own URSS Student Guidance 2020 specific needs regarding these living costs. However, at the most basic level, the following information may help you when working out your funding breakdown:

  - On campus accommodation (Summer Vacation 2018): £13 - £20 per night = £91-£140 per week. The cost may be increased for 2019
  - Subsistence (food) suggested spend, based on self-catering all meals): £25-35 per week
  - Travel: based on West Midlands Day-Saver: 5 ticket scratch card = £19

  Total per week: £135 - £194

You can apply for bursary of £1000 maximum in the UK, £1500 if you wish to research abroad, including the Hong Kong University exchange collaboration. You therefore need to consider how this will support your entire living costs. E.g. £1000 over 10 weeks = £100 per week - campus accommodation costs £91 per week minimum, leaving £9 per week. To ensure you can buy food & pay travel costs, you may need to reduce the length of your project."

Notification of Funding Outcomes

Project supervisors will normally be made aware of the funding outcomes of the URSS scheme (including department funding where applicable) shortly after the outcomes of the URSS scheme have been made available (around the end of the Spring term). Students in receipt of university funding will also be notified directly by the URSS organisers.

Careers

What options will you have with a degree in mathematics?

- The underpinning skills and knowledge developed on a mathematics degree are highly valued by employers across a variety of sectors. Surveys of graduate career destinations consistently show that approximately 30% of mathematics graduates progress to a career in financial and professional services. What do graduates do and the destinations of Warwick mathematicians are broadly similar Career destinations for Warwick Mathematics students
It is worth noting that approx. 80% of the top graduate recruiters do not specify a degree discipline - analytical and problem-solving skills are developed to a very high level on a mathematics degree and these skills are very transferable, so you can also realistically also consider a career in non-finance related sectors. A number of Warwick mathematics graduates have successfully developed careers in meteorology, the games industry, software, the arts and the media and data analytics, for example.

The value of a mathematics degree was highlighted by the Council for Mathematical Sciences (CMS) in their 2015 report which found that the demand for job applicants with numerical qualifications has significantly increased and that almost 2,000,000 people now work in jobs where mathematical sciences qualifications are essential. The research also concluded that this demand is reflected in salary levels, 'In 2012/2013, just six months after graduation, the median salary for mathematical sciences graduates was £24,000. 19% of those graduates were already earning more than £30,000 and 7% were already earning £40,000 or more.' (The Mathematical Sciences People Pipeline, Oct 28th 2015)

What do employers require?

- The Warwick Mathematics degree is a highly credible qualification and has an excellent reputation. Employers do not only require high levels of academic achievement however, they also look for a variety of 'employability skills' Employability Skills. According to the 'High Fliers' annual survey of recruitment in the graduate labour market, nearly 60% of top employers state that graduates have 'little or no chance of finding a graduate level job without work experience'.

- The most convincing way to demonstrate these additional skills is to gain experience – any experience is valuable if you present it in a way relevant to the job role and the employer's requirements. During and throughout your degree, consider the opportunities available to you on campus (through volunteering, extra-curricular and society involvement, for example) and through work experience, placements and internships. You can search for opportunities to gain experience on the Careers and Skills portal My Advantage https://myadvantage.warwick.ac.uk/ and the 'Experience Pool' Get experience

What impact will module choices have on my career plans/options?

- If you are worried about how choosing your degree options might affect the choices open to you after graduation this may not have as much impact as you think.

- Generally speaking there are many factors that employers consider before they start looking at the way your degree was structured. They are interested in your motivations and interests and why you've chosen a particular career. Option choices can help here, the Challenges of Climate Change module, for example, would indicate commitment and enthusiasm to an employer in the renewables sector.

- For some careers, your general level of academic attainment is important and if you want to enter one of these, it would be a shame to jeopardise a 2.i by choosing an unknown area of study that you might find overly stretching.

- The key message is: if you know what career area you want to enter, option choices are one way to prepare for this and you might want to discuss them with your tutor or a careers consultant. However, if, like many, you have a very open mind as to your future area of work, choose options that you will enjoy and that will hold your interest as these are the ones where you are most likely to find the motivation to work hard and do well.
What advice and information is available through the universities Careers & Skills Service?

- The departmental careers consultant is Ray Ryan and individual appointments can be booked with him through My Advantage Book an appointment or by emailing him directly at r.ryan@warwick.ac.uk. The advice offered is impartial, is designed to help you feel more confident about making a career decision and takes place in a confidential setting, either in the Zeeman building or the Learning Grid at University House. The agenda of the careers appointments is set by the student and may include for example:

  - Discussing career options with a mathematics degree
  - Application advice (CVs, on-line applications & cover letters)
  - Preparation for an interview and/or assessment centre
  - Academic support is also available through the Skills team, you may want to develop your study skills, your time management skills to prepare for assignment deadlines or to prepare more effectively for examinations and dissertation writing, for example Skills.
  - If you're hoping to find employment in the UK after graduation and English isn't your first language, think about ways in which you can improve your conversational language skills so that you can approach job interviews, for example, more confidently. The Centre for Applied Linguistics runs classes for our non-native speaking students, Learning English.

Don’t leave it too late!

Don't leave your career planning until your final year though. You are welcome to visit the Careers Service at any time during your academic career. We are happy to see you if you have no idea or lots of ideas about what you want to do next. For those of you looking for career inspiration the Careers Hub and Weblink online resources hold information on a wide range of jobs and you can try your hand at the computer based 'Prospect Planner' to generate career ideas - see www.prospects.ac.uk. We may also run specialist appointments for maths students – see our Website for information about how to make an appointment.

Second year students in particular: to continue onto the third year of the MMath you need to reach a certain standard at the end of the year. Many of you who are currently on the MMath will not be by the end of year 2 so if you did not get a first in year one there is a strong possibility you could be in your penultimate year now!

Undertaking Volunteer projects can also develop essential transferable skills such as communication, teamwork and project management. Please visit www.warwick.ac.uk/volunteers to access the Warwick Volunteers site. Possible projects include student mentoring, student tutoring, Kidz Kamp and many more.

During the forthcoming academic year, there will be a range of events and sessions relevant to maths students and the careers consultant who works with maths will be available in the department at times throughout the year for appointments (although you can also make appointments throughout the year at University House).

How to Impress

Look at any recruitment advertisement for graduates and you'll see what they want. Yes, of course they want the applicants to have a good degree, but they want to see good transferable skills as well. Transferable skills? Things like really good communication skills, team-working, negotiation and persuasion, resilience, initiative, planning and organising and problem solving skills. That's just an example of the sort of generic skills, that can be adapted to many different types of workplace, that employers are demanding today.

Transferable Skills from the Mathematics degrees

You can develop your skills in a number of different ways. Firstly, through your studies - mathematicians have good analytical skills, will think logically and be good at solving problems. Secondly, think about how work experience can develop things like team-working, dealing with people, multi-tasking, drive, initiative and taking responsibility. Getting involved in other extra-curricular activities like clubs and societies will also give the opportunity to develop and demonstrate those skills that the employers want to see.
Study Abroad

This page is for outgoing Warwick students interested in going abroad to study (mathematics) for a year. Click here for information for incoming students coming to Warwick with the Erasmus program.

Studying abroad (to be updated when more information becomes available)

The standard program is Erasmus+, that allows students from Warwick to spend a year at selected universities in Europe. To qualify to be an Erasmus+ student, you need to be an EU or an EEA national. For their year abroad, Erasmus+ students pay some tuition fees to the University of Warwick (currently £1,385 for home/EU students) and no fees to the host institution, although some universities may charge for a student card which allows students to register and travel at student prices (around £200 per semester). Erasmus+ students remain registered at Warwick whilst they are abroad and, as such, continue to be eligible for student loans for the Erasmus+ year. In addition, they receive an Erasmus+ grant which contributes toward their travel and living expenses abroad.

In general teaching at the partner institutions is in the local language (see below). It is normally expected that students applying for an Erasmus+ placement will already have basic competence in the relevant language (for example from school, or by taking language modules as options since arriving at Warwick).

The Erasmus+ year is taken after two complete years of study in Warwick. There are three options:

- **BSc with Intercalated Year (G101):** Open to students with at least a good 2.1 mark. The year abroad does not contribute to the final degree mark; you resume your studies in Warwick with the 3rd year, leading to the BSc degree (G101) from Warwick University.

- **MMath with Intercalated Year (G105):** Open to students on the four-year MMath degree course with at least a good 2.1 mark. The year abroad does not contribute to the final mark; you resume your studies in Warwick with the 3rd year, receiving the MMath degree (G105) from Warwick University after two more years of study.

- **MMath with Study in Europe (G106):** Open to students on the four-year MMath degree course with strong marks. The year abroad is instead of the 3rd year of studies in Warwick; the marks you obtain whilst abroad contribute to your final degree mark. You resume your studies in Warwick with the 4th year of the MMath. (The Finals Exam Board secretary will confirm how many of your year abroad modules can count towards the MA4 CATS requirement). This leads to an MMath degree (G106) from Warwick University.

Here are the relevant course regulations. The above programs are open to students enrolled in G100 and G103 only. There are further exchange programs open to other students, but they are run by the partner departments: Mathematics and Business Studies (with Intercalated Year) (G1N2) and Mathematics and Economics (with Intercalated Year) (GL12).

Erasmus+ exchanges are only possible with universities that have an official link with the Department of Mathematics, and there are strict restrictions on the number of students sent to each university. Universities with existing links with Warwick are:

- **Belgium:** Université Libre de Bruxelles
- **France:** Grenoble, École Normale Supérieure de Lyon, Paris VI, Paris VII, Strasbourg I (Bruxelles and Geneva are also French speaking!)
- **Germany:** Augsburg, TU Berlin, Bonn, Bremen, Göttingen, Kaiserslautern, München (Bern is also German speaking!)
- **Italy:** Padova
- **Malta:** Malta
- **The Netherlands:** Leiden
- **Portugal:** Lisbon, Porto
- **Spain:** Barcelona, Madrid Autonoma, Madrid UC, Sevilla
- **Switzerland:** Bern, Geneva

NB: Teaching is in English in Malta, there are also several modules in English in Leiden (The Netherlands) and some at other universities. Please read the experiences of other students to see whether there are options in English at the university of your choice or visit the university web site.

Read about the experiences of former students. See also the information from the Student Mobility team at Warwick.

If you are interested in going abroad: please send a short email before 8th November 2019 to Anca Kranenborg. Mention your preferred university or country. You will be invited to the Erasmus party to be held in the middle of November.

Calendar
- **Friday 4 December 2020**: first deadline for applications, for a leave in the academic year 2021-22. Applications are accepted afterwards, but the choice of destinations progressively decreases. First decisions to be announced before the winter break.
- First two weeks of Term 2: decide the final course of study (you will have a chance to transfer at the end of your year abroad, eg. from G106 to G105).
- **Monday 11 January 2021**: last deadline for applications for a leave in the academic year 2021-22. Contact Anca Kranenborg in the Maths UG office for the list of remaining open links.

For further questions, please contact Anca Kranenborg in the Undergraduate Office or Marco Schlichting, the Erasmus coordinator in the Department of Mathematics.

[Erasmus web page](https://www.warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/yourviews/) of the University.

<table>
<thead>
<tr>
<th>Year 1 regs and modules</th>
<th>G100 G103 GL11 G1NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2 regs and modules</td>
<td>G100 G103 GL11 G1NC</td>
</tr>
<tr>
<td>Year 3 regs and modules</td>
<td>G100 G103</td>
</tr>
<tr>
<td>Year 4 regs and modules</td>
<td>G103</td>
</tr>
</tbody>
</table>

**Student Voice**

[Student-Staff Liaison Committee (SSLC)](https://www.warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/yourviews/) are keen to receive feedback from our students on their experience, and what improvements might be made. If you would like to give feedback, share an idea or make a complaint, there are several ways in which you can do this:

**Student-Staff Liaison Committee (SSLC)**

The Student Staff Liaison Committee (SSLC) is a regular forum, meeting twice a term, for matters affecting maths students and staff. **All students are welcome to attend.**

If you have any issues about the course that you would like to raise, please contact your year reps, or simply sending an email to maths.sslc@warwick.ac.uk

The SSLC also has:
- A big notice board on the ground floor of Zeeman ("the Street")
- A Moodle page, where meeting minutes and outcomes can be downloaded.
- A Facebook page.

In the past, the SSLC has contributed to departmental policy, passing on recommendations for consideration at staff meetings - for example, recommending new modules and fixing timetabling issues. A student member also attends staff meetings and the department's Teaching Committee to present student views.

**Module Feedback**

Students are invited to provide module feedback twice a term in every module via online evaluation forms: an initial form near the start of the module for instant feedback to the lecturer regarding perceived problems, and a more in-depth form near the end of the module. Lecturers will see the results of these evaluation forms, as will the Head of Department, Director of Undergraduate Studies and Director of Student Experience. Lecturers will usually provide oral feedback to the initial evaluation, and a written feedback for the end-of-module evaluation.

**Surveys**

1) National Student Survey

The National Student Survey (NSS) is an annual UK-wide survey for all final-year undergraduates studying at UK universities. It gathers opinions from final-year undergraduates on various aspects of their courses. The NSS is your opportunity to give anonymous feedback about your course, which we use to improve our teaching and the courses we offer. Results are publicly available to prospective students, their families and advisors to help make informed choices of where and what to study.
For finalists graduating in 2020, the NSS will be available in early February. Finalists will be sent a link (by Ipsos MORI who independently collects the data) to the NSS on Thursday 6th February. Every student who completes the NSS gets a £5 Eating-at-Warwick credit. In addition, £5 will also be donated to a Warwick charity.

For more information about the NSS, please visit the University’s NSS website or contact Dr Siri Chongchitnan.

2) Warwick Student Experience Survey

The Warwick Student Experience Survey (WSES) is conducted every autumn by the University. It’s a great chance for all students on taught courses to provide feedback on the whole Warwick experience - from arriving at university, to learning, living and campus services. Like the NSS, it also takes just five to ten minutes to fill in and eligible students are strongly encouraged by the University and the department of Mathematics to participate.

For more information please visit the WSES webpage.

3) Graduate Outcomes Survey

The Graduate Outcomes survey collects information on the activities and perspectives of graduates approximately 15 months after completion. The survey covers UG, PGT and PGR students, home and overseas, full- and part-time. It is conducted by the Higher Education Statistics Agency and is the biggest annual social survey in the UK. The results provide an insight into the career destinations of recent graduates, which shapes both the delivery of services in Higher Education as well as influencing the government’s understanding of the needs of the graduate labour market.

For more information please visit the Graduate Outcomes website.

Maths Focus Groups

The Department of Mathematics holds different kinds of student focus groups throughout the year to get feedback and views of our students about their courses. Maths focus groups are informal, relaxed events (usually with pizzas). Please look out for emails from Dr Siri Chongchitnan for details on the next focus groups.

Personal Tutor

Personal tutors are there to be your advocate and can assist you with submitting feedback and give you more information about filing a complaint. All students, undergraduate and postgraduate, are assigned a Personal Tutor. If you have any questions about the Personal Tutor System, please see the Help and Advice pages or contact the Department Senior Tutor, Professor Richard Sharp.

Complaints

You may like to raise complaints over any of the following issues:

- the quality and standard of service provided by the University, including teaching and learning provision;
- failure to provide a service; unsuitable facilities or learning resources;
- inappropriate behaviour or treatment by a staff member, student or individual associated with the University (including contravening the University’s Dignity at Warwick Policy, which includes harassment, bullying, and discrimination);
- failure of the University to follow an appropriate administrative or academic process.

Please try to resolve any issues you may have by speaking to the relevant colleague (e.g. if you are having problems with supervisions then speak to your supervisor initially). If your complaint is with the department of Mathematics, please contact your personal tutor, or the Director of Student Experience (Dr Siri Chongchitnan), or the Department Administrator, Jen Bowskill.

<table>
<thead>
<tr>
<th>Year 1 regs and modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>G100 G103 GL11 G1NC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2 regs and modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>G100 G103 GL11 G1NC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 3 regs and modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>G100 G103</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 4 regs and modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>G103</td>
</tr>
</tbody>
</table>
# Student Experience Feedback

[https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/yourviews/studentexperiencefeedback/](https://warwick.ac.uk/fac/sci/maths/undergrad/ughandbook/general/yourviews/studentexperiencefeedback/)

Do you have any comments or suggestions on how to improve the overall student experience in Maths? We'd be very grateful for your thoughts. Your submission will be anonymous, unless you choose to share your email address.

**Subject**  

**Feedback** *

---

Would you like us to contact you with a response? If you select "Yes, please provide your email address below.. " *

- Yes  
- No  

If you have selected 'yes' above, please provide your Warwick email address here. By providing your email address your feedback will no longer be anonymous.

---

* indicates a required field

---

**Privacy notice**  

Although you must sign in to access the form, feedback is anonymous unless you choose to provide your email address. Details from this form will be shared with those responsible for responding to feedback and improving student experience initiatives and strategies.  

The University of Warwick is the Data Controller of any information you have entered on this form and is committed to protecting the rights of individuals in line with Data Protection Legislation. The University’s [Data Protection webpages](https://www.warwick.ac.uk/services/privacy/) provide further information on your rights and how the University processes personal data. Please submit any data subject rights requests to [infocompliance@warwick.ac.uk](mailto:infocompliance@warwick.ac.uk) or address any complaints or suspected breaches to the University’s Data Protection Officer at [DPO@warwick.ac.uk](mailto:DPO@warwick.ac.uk).

---

**Spam prevention**  

I'm not a robot

---

reCAPTCHA  

Privacy - Terms
In the Student Reference Collection (SRC) you will find copies of the most useful textbooks for undergraduate study, with very restricted borrowing to make sure that they are available to the largest possible number of people.

In the main part of the University Library is an excellent wider collection of mathematics books. Get into the habit of browsing - books contain all sorts of interesting things! If you don't understand part of a module, try to find the material in a book. Learn how to track down books on a particular topic by browsing, using the library online catalogues and the review journals, guessing, and, when all else fails, searching physically through large numbers of books. You can't be a serious academic or scientist without detective work in libraries, and although resources available on the Internet are easier to locate there is still no substitute for browsing books.

During your first week at Warwick you should make yourself familiar with the Central Campus Library, there are excellent resources on their website to introduce you to the facilities available. If you need further help during your course, ask at the Enquiry Desk on Floor 1 during office hours, consult the printed guides and leaflets available on each floor or contact the Library's Science Team. Chris Vernon is the Subject Librarian for Mathematics and the departmental library representative is Sheetal Sharma. Contact either of them about any books which you feel ought to be in the Library, or if there are not enough copies of key texts. (Library matters can also be raised at SSLC meetings.)

You can also find books in the University bookshop as well as well-known online retailers! We do not expect you to buy your own copies of textbooks, but for some modules you may find it useful to do so, especially modules that you may find yourself struggling on. Standard maths textbooks will typically be around 40 pounds to buy from new, but cheaper copies can be found online second-hand (Amazon is good for this), or sometimes you can find students from higher years selling their old copies through the Student Union. Warwick has an arrangement with Blackwell's that includes a price match guarantee.

The Mathematics Society: WMS

The Maths Society (WMS) offers opportunities for involvement in both academic and social activities. Although officially a society of the Students Union it also has close links to the department. They publish guides to the more difficult and important modules for the benefit of first year students. They also arrange extra informal tuition by second and third year students, in addition to official supervisions. They also hope to provide an introductory course and guide to LaTeX, the popular computer typesetting package for maths, which is invaluable for writing essays and projects.

<table>
<thead>
<tr>
<th>Year 1 regs and modules</th>
<th>G100 G103 GL11 G1NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2 regs and modules</td>
<td>G100 G103 GL11 G1NC</td>
</tr>
<tr>
<td>Year 3 regs and modules</td>
<td>G100 G103</td>
</tr>
<tr>
<td>Year 4 regs and modules</td>
<td>G103</td>
</tr>
<tr>
<td>Exam information</td>
<td>Core module averages</td>
</tr>
</tbody>
</table>

Greek Alphabet

<table>
<thead>
<tr>
<th>Name</th>
<th>Upper case</th>
<th>Lower case</th>
<th>Often used for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>A</td>
<td>Α</td>
<td></td>
</tr>
<tr>
<td>Beta</td>
<td>B</td>
<td>β</td>
<td></td>
</tr>
<tr>
<td>Gamma</td>
<td>Γ</td>
<td>γ</td>
<td></td>
</tr>
<tr>
<td>Delta</td>
<td>Δ</td>
<td>δ</td>
<td>A small number</td>
</tr>
<tr>
<td>Epsilon</td>
<td>E</td>
<td>ε, ε</td>
<td>Another small number</td>
</tr>
<tr>
<td>Greek Letter</td>
<td>Lawyer</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Zeta (Ζ)</td>
<td>Z</td>
<td>ζ</td>
<td></td>
</tr>
<tr>
<td>Eta (Η)</td>
<td>H</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Theta (Θ)</td>
<td>θ, θ̇</td>
<td>Angle</td>
<td></td>
</tr>
<tr>
<td>Iota (Ι)</td>
<td>I</td>
<td>ι</td>
<td></td>
</tr>
<tr>
<td>Kappa (Κ)</td>
<td>K</td>
<td>κ</td>
<td></td>
</tr>
<tr>
<td>Lambda (Λ)</td>
<td>Λ</td>
<td>Eigenvalue</td>
<td></td>
</tr>
<tr>
<td>Mu (Μ)</td>
<td>M</td>
<td>μ</td>
<td></td>
</tr>
<tr>
<td>Nu (Ν)</td>
<td>N</td>
<td>ν</td>
<td></td>
</tr>
<tr>
<td>Xi (Ξ)</td>
<td>ξ</td>
<td>Unknown quantity, x</td>
<td></td>
</tr>
<tr>
<td>Omicron (Ο)</td>
<td>O</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>Pi (Π)</td>
<td>P, \Pi_{i=1}^{n}</td>
<td>π, \omega Product, π = 3.14159 . . .</td>
<td></td>
</tr>
<tr>
<td>Rho (Ρ)</td>
<td>ρ</td>
<td>ρ, ϑ</td>
<td></td>
</tr>
<tr>
<td>Sigma (Σ)</td>
<td>Σ, \Sigma_{i=1}^{n}</td>
<td>σ Sum, standard deviation</td>
<td></td>
</tr>
<tr>
<td>Tau (Τ)</td>
<td>τ</td>
<td>τ</td>
<td></td>
</tr>
<tr>
<td>Upsilon (ϒ)</td>
<td>υ</td>
<td>Rarely, if ever, used</td>
<td></td>
</tr>
<tr>
<td>Phi (Φ)</td>
<td>φ, ϕ</td>
<td>Another angle</td>
<td></td>
</tr>
<tr>
<td>Chi (Χ)</td>
<td>χ</td>
<td>χ</td>
<td></td>
</tr>
<tr>
<td>Psi (Ψ)</td>
<td>ψ</td>
<td>ψ</td>
<td></td>
</tr>
<tr>
<td>Omega (Ω)</td>
<td>ω</td>
<td>Angular velocity, the end.</td>
<td></td>
</tr>
</tbody>
</table>