The
University
Of
Sheffield.

School
Of
Mathematics &
Statistics.

Level 1 Student

Handbook

2018-19

Contents

Disclaimer

We have done our best to ensure that the information in this booklet is correct. Changes in arrangements and/or regulations may occur from time to time. You should check the School website (https://www.sheffield.ac.uk/maths/current) and your e‑mail for amendments (see Section 7.4). The School of Mathematics & Statistics cannot accept responsibility for errors occurring as a result of changes to regulations.

Dear Student,

It is my pleasure to welcome you to the School of Mathematics & Statistics (SoMaS) and to congratulate you on being admitted to the University of Sheffield!

Some of you are starting on three year courses, others on four year courses. Whichever you are doing, I hope that you will find your time here both intellectually challenging and fun. University life has so much to offer — including the many societies, sports clubs and voluntary activities — and I strongly encourage you to get involved in some of those to get the full experience and benefit of being at University. Your lecturers and I also expect you to work hard. Remember that lectures, examples classes and other scheduled teaching activities only account for a part of the time you should devote to your studies. A ten credit module should equate to a total of about 100 hours of work on your part, a twenty credit module to 200 hours. You can therefore see that you need to spend about 1200 hours attending lectures etc. and in private study over the academic year.

Many of you will be living away from home, probably for the first time. There can be times, particularly in your first term at University, when that is hard. Support one another, and make some friends as soon as you can at University — some of the people on your course, some people you are living with, people you meet through societies or other activities. These are the people who can offer support when you need it, and you can support them in turn. You will also have a personal tutor who can offer advice, and there are good support services available through the Union.

Once again I congratulate you on being here, at the start of an exciting journey full of opportunities and challenges. Work hard and have fun! I wish you a stimulating, successful and enjoyable time at the University of Sheffield.
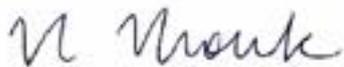
Professor Nick Monk, Head of School

1 Aims and Learning Outcomes

The School of Mathematics & Statistics (SoMaS) has a fundamental aim to deliver high quality education, in line with the University's Mission to maintain the highest standards of excellence as a research-led institution whose staff work at the frontiers of academic enquiry and educate students in a research environment.

All our courses are designed with this aim in mind.

Aims

The aims of the SoMaS undergraduate degree programmes are:
a)   to provide a mathematics and statistics degree programme with internal choice to accommodate the diversity of students' interests and abilities, and to provide dual degrees to cater for those who wish to combine disciplines;
b)   to provide an intellectual environment conducive to learning;
c)   to prepare students for careers which use their mathematical/statistical training;
d)   to provide teaching which is informed and inspired by the research and scholarship of the staff;
e)   to provide students with assessments of their achievements over a range of mathematical and statistical skills, and to identify and support academic excellence.

In its single honours programmes, it aims:
f)   to provide a degree programme in which students may choose either to specialise in one mathematical discipline (Pure Mathematics, Applied Mathematics, Probability & Statistics) or to choose a more balanced programme incorporating two or all three of these disciplines.

In its single honours programmes with Study in Europe, it aims:
g)   to offer students the opportunity to study mathematics and statistics in another European country.

In its single honours MMath programmes, including the MMath with Study in Europe programme, it aims:
h)   to prepare students for progression to a research degree in one of the three mathematical disciplines or for careers in which the use of mathematics is central.

Learning Outcomes

The learning outcomes for the single honours degrees within SoMaS are given below in full.

A single honours BSc graduate should:

1)   have acquired a working knowledge of the methods of linear mathematics;
2)   have acquired a working knowledge of the methods of advanced calculus;

3) have acquired a broad knowledge of at least two of Pure Mathematics, Applied Mathematics and Probability & Statistics;
4) have acquired a detailed knowledge of specialist mathematical or statistical topics;
5) be able to apply core concepts and principles in well–defined contexts;
6) show judgement in the selection and application of mathematical tools and techniques;
7) demonstrate skill in comprehending problems and abstracting the essentials of problems;
8) be able to formulate problems mathematically;
9) be able to obtain solutions to problems by appropriate methods;
10) have acquired skill in calculation and manipulation;
11) be able to understand logical arguments, identifying the assumptions and conclusions made;
12) be able to develop and evaluate logical arguments;
13) be able to present arguments and conclusions effectively and accurately;
14) demonstrate the ability to work with relatively little guidance;
15) have developed the skills to acquire further mathematical or statistical knowledge;
16) have developed the skills to model and analyse physical or practical problems;
17) appreciate the development of a general theory and its application to specific instances;
18) have experience of using computer packages.

In addition, those graduates whose programmes have included a substantial component of Pure Mathematics should:

19) understand the need for proof and logical precision;
20) have developed an understanding of various methods of proof.

In addition, MMath graduates should:

21) have enhanced and extended their specialist knowledge in at least one of the three disciplines: Pure Mathematics, Applied Mathematics, Probability & Statistics;
22) have enhanced and extended the necessary mathematical skills to consider careers as practising mathematicians or statisticians;
23) have shown the ability to complete an extended individual study of a mathematical or statistical topic and to present an account of that topic.

In addition, graduates from degrees with 'Study in Europe' will:

24) have acquired a working knowledge of their chosen language;
25) have experienced first–hand, through a substantial period of study of mathematics at a European University outside the UK, the life, language and culture of a different European country;
26) be able to converse with native speakers of their chosen language;
27) be able to interpret mathematical text written in their chosen language.

Learning outcomes for duals degrees with mathematics and/or statistics are broadly similar; full details are given in the Programme Specifications for these degrees, available from http://www.sheffield.ac.uk/calendar/progspec.

2 What is Expected of Students

2.1 Awareness

- You are expected to be familiar with the content of this handbook and to keep it during the first year of your studies. You will be informed of changes as necessary.
- You should be familiar with the SoMaS and central University Intro Week Timetable (which you will receive separately) and be sure to attend **all** the sessions that are relevant to your degree programme.
- *You should ensure that you know what is required of you for each module that you take*. For mathematics and statistics modules much of this information will be provided in the first lecture of each course. Further information about courses will be placed on the computer network, and teaching staff may also issue notices via e–mail. You should therefore check your **University e-mail account** frequently, preferably daily; staff will not normally send e-mails to non-University accounts.

2.2 Studying

To be a full-time student requires a full commitment of time and effort on your part. The University expects you to work for around 35-40 hours per week on lectures, classes, coursework and private study, shared between the modules you are taking.

Lectures and Individual Study

Most new material is presented in lectures, though for certain courses some might be introduced via printed notes or on-line materials and in practical sessions. In most courses learning is sequential, so it is important to have met and understood earlier material in order to follow what is being presented currently. If you have to miss a lecture therefore you should copy up notes borrowed from a friend before the next lecture. Copying rather than *photocopying* is advisable for this, since it helps focus your attention better. After a lecture, study your notes carefully. Work through the details slowly, and annotate your notes, using a different colour to help in later revision. Scan through the last lecture's notes before the next lecture to keep on top of the material. Read supporting material from textbooks as necessary. Always start set exercises well ahead of the appropriate Problems Class/Tutorial so that you are aware of any difficulties on which you might need to seek guidance.

Problems Classes/Tutorials and Practicals

For most SoMaS courses regular, often weekly, coursework is set. Some of this may be for in-course assessment, but much of it is to help you understand the material

that is being taught and to enable you to learn skills needed for using and developing the new ideas that you meet. You will usually receive feedback on coursework during Problems Classes/Tutorials. The detailed arrangements for handing in coursework for marking will vary over modules; you will be told about them at the start of each new course.

Problems Classes/Tutorials provide the opportunity to get personal attention. To make the most of them you should read through relevant lecture material and try the set exercises before the class. Think of questions relating to the course material to ask, making a note of any points you do not understand so that they can be cleared up in discussion with the teaching staff. Take your lecture notes with you. Also ask for guidance on any difficulties with the set work. The tutors are there to help you. Do give yourself enough time to complete each exercise sheet before the submission date. Many of the remarks above apply also to Practical Sessions, though to complete set work associated with them you may need to spend more time after the session than before it.

You should plan on spending around three hours per week on individual study for each module, in addition to the time spent in lectures and classes.

2.3 Attendance

- In accordance with the University's '*Our Commitment'* you are expected to attend **all** lectures and classes associated with your chosen modules, to arrive **punctually**, and to satisfy all assessment requirements, including completion of any in-course assessment and attendance at requisite examinations.
- One important consequence of this attendance requirement is that the responsibility rests with the student to discover if any important administrative information was announced in lectures or classes. It is not the staff's responsibility to identify who is not there and communicate with them separately.
- Attendance at Problems Classes/Tutorials and Practicals and your performance on weekly exercises will be monitored and appropriate action taken.
- If you wish to be absent from the University for some special reason, you should, if possible, discuss the matter in advance with your personal tutor (see Section 7.1); if this is not possible, you should inform your personal tutor as soon as you can.
- If you fall ill whilst at the University, you can seek help from the University Health Service if you have registered with it, or your local GP.
- If you are absent from lectures or tutorials, you need to complete an **Extenuating Circumstances Form** (available online at https://www.sheffield.ac.uk/ssid/forms/circs). Extenuating circumstances forms should be used for both *medical circumstances* (sickness, injury, surgery/hospitalization etc.) and *other personal circumstances* (such as personal or family problems, bereavement etc.), which have resulted in a period of absence. If you miss just one or two classes due to short-term illness or other reason, an extenuating circumstances form is not necessary – in this case you should contact the module leaders concerned to explain your absence and ask if your absence can be excused.

2.4 University Regulations

The University Regulations can be found in the Calendar (https://www.sheffield.ac.uk/calendar). There are regulations that apply to all students on, for example, Registration and Fees, Academic Progress, Appeals, and Student Discipline. There are also regulations for particular degree programmes, which can be found at http://www.sheffield.ac.uk/calendar/regs.

One aim of this handbook is to outline the important features of these regulations in an accessible way. This handbook does not override or modify the Regulations.

3 Intro Week

3.1 Activities

Intro Week, 17th – 22nd September 2018, is a week of introductory activities for new undergraduates before the beginning of teaching, which starts in the week commencing 24th September 2018. During Intro Week you will have the opportunity to meet fellow students, to get your bearings in the University and city, to find out about some of the social, sporting and other opportunities open to you, and you will also complete the formal processes of Academic Registration.

The purpose of Academic Registration is to produce an official record of your choice of modules for the year. You will be able to discuss which modules are appropriate before finalising your Registration Form (see Section 10, particularly Section 10.7). For each module you choose, a member of the academic staff of the department responsible will sign or approve your choice online to signify your acceptance on the course. One Academic Registration is complete, your choice of modules will appear on your central University record. You may change modules at any time in the first three weeks of the semester (see Section 10.4 for how to do so).

The general activities in Intro Week are arranged by Student Services, and those specific to particular academic subjects by the departments concerned. Details about activities specific to Mathematics & Statistics, including information about what you need to do for Academic Registration, will be sent to you in August 2018. Information about the other activities taking place in Intro Week can be found in the pack sent to you by the Student Services Department.

3.2 Intro Week Programme in SoMaS

The Intro Week programme in SoMaS consists of welcome meetings, academic registration meetings, introductory mathematics sessions and introductory computing sessions. **You will be sent a detailed programme in August 2018.**

Details about the course timetable, problems classes, choice of modules, etc. will be given during the meetings in Intro Week.

Attendance at all sessions in Intro Week is compulsory.

4 Arrangements for Teaching and Studying

4.1 The Modular System

Teaching is organised in a *modular* system. A full–time student takes courses worth 120 credits in each year of study. Courses normally taken in the first year of study are referred to as *Level One courses*, those in the second year as *Level Two courses*, and so on. SoMaS Level One modules are worth 20 credits (the terms *course* and *module* are used almost interchangeably). Modules in later levels are often 10 credits modules. Most Level One modules consist of *lectures* supplemented by *problems classes/tutorials* and sometimes also by *practicals* or *computer laboratory sessions*. The proportions of these activities vary between modules: full details are contained in the course outline distributed in the first lecture of each course. Some modules in later years are based on project work and have slightly different arrangements.

The Mathematics and Statistics modules taken by Level One students for each of the degrees to which Mathematics and Statistics contributes are listed in Section 11 of this handbook. The list of staff responsible for each module can be found on the Module List on the School of Mathematics and Statistics website at https://www.sheffield.ac.uk/maths/current. The timetable also specifies the hours and locations of the lectures, problems classes and practical sessions associated with each module.

4.2 Lectures

Lectures are relatively formal teaching sessions mainly used to convey information. Groups can be large. Each module usually has two 50–minute lectures per week. Exceptions to this include MAS110 (Mathematics Core I) and MAS111 (Mathematics Core II) which have four 50-minute lectures per week.

4.3 Problems Classes/Tutorials

These are less formal than lectures and the groups are smaller. The students studying a particular module are usually divided into several Problem Class/Tutorial groups, each group meeting usually for 50 minutes a week (different arrangements apply to some modules, including MAS110 Mathematics Core I and MAS111 Mathematics Core II). The allocations of tutorial groups will be available to view on the SoMaS webpage (http://www.shef.ac.uk/maths) under the 'Current Students' tab at the end of Intro Week. The timetable will list times and locations for each of the tutorial groups associated with a particular module. You attend only the session for your tutorial group, not all of them.

In Problems Classes/Tutorials you work on set problems under guidance from the course staff, and you can also raise your own questions about course material, as and when they arise from lectures and coursework. You will be asked to hand in work to be marked, and tutors will discuss it with you. The aim is to help you develop both skills and understanding. For many Problems Classes you will need a calculator : the course staff will advise in the first session. For all Problems Classes you should **take your course lecture notes with you**.

4.4 Practicals

Practical Classes, sometimes referred to as Computer Sessions or Laboratory Work, are associated with some courses, often replacing the Problems Classes for those courses in designated weeks. Arrangements will be announced in lectures. Again, you work on set tasks under guidance, developing skills with mathematical or statistical computer packages and with problem solving.

4.5 Library Facilities

The University Library provides 24-hour access to study space, a huge range of books and online information (including online journals and ebooks) as well as advice to help you find and use information effectively. You'll find all the information you need to get started on the library webpages (http://www.sheffield.ac.uk/library/study).

There are three main library sites where you can go to study, find reading for your course, use the computers or borrow a laptop, and get advice on finding, organising and referencing information. You'll need to bring your Ucard with you to get into the library, borrow books and to use the printers and copiers. Remember to ask a member of staff if you need anything.

- **The Information Commons** (IC) is open 24 hours a day. You should find most of your recommended books here. Visit the Information Desk on level 1 for help using the library, finding materials for your course, or for help with your computer or laptop.
- **The Diamond** is also open 24 hours a day, and has four floors of study space. Visit the top floor (Level 4) to speak to Library and CiCS staff at the Information Desk or to use the collection of reference books.
- **Western Bank Library** is a good place for quiet study or research, with books and journals on all subjects and a large reading room overlooking Weston Park.

You can use any empty room in the Hicks Building for quiet study during term time, however please bear in mind that you will need to leave the room if a teaching activity is planned in that room. The Porter in the Porters Lodge on D-floor of the Hicks Building may be able to identify which rooms are available for that day.

4.6 Computing Facilities

Clusters of networked PCs are located in the Hicks Building in rooms G25, G29 and G39a. Anyone can use them between 8.00am and 8.45pm, Monday to Thursday, between 8.00am and 7.45pm Friday, and between 8.00am and 11.45am Saturday, provided they have not been booked for classes. A timetable on the door of each room shows when it is not available. There are also clusters of PCs in many other parts of the University, including the Information Commons, and you are free to use those whenever they are open and not needed for teaching. You may use the PCs for academic work or for non–academic purposes, though in the latter case, in accordance with University rules (displayed in computer rooms and on the web at

), you should give way if someone else needs a machine for work.

The Campus Wireless Network is available in many parts of the Hicks Building, the Information Commons, and many other locations. Information on how to use the computer network and about access to e-mail and the web is contained in documentation distributed during Intro Week, when there will be 'hands-on' introductory computing sessions. Further information is available from the Corporate Information and Computing Services (CiCS) helpdesk in the Computing Centre on Hounsfield Road.

4.7 Help With Your Study

SoMaS has developed a maths formulary that can be accessed via iSheffield through a Smartphone, laptop, tablet, pc, etc. The use of the app is self-explanatory and is available only for people with University accounts, i.e. you can use it once you receive your University log-in details during Intro Week. To access the app, follow the instructions at http://www.sheffield.ac.uk/cics/isheffield. Once you are in the app, click on "Learning and Teaching" and you should find the ShefMath Formulary.

Before your first use of the app, please read "How to use the Local Search". This will help you find what you are looking for very quickly.

4.8 Study Abroad

Students on a four year degree programme can apply to spend their third year abroad. Dual degree students need the approval of both departments. Any student interested in this possibility should contact the SoMaS Study Abroad Tutor (see 'Contact Us' on the SoMaS website http://www.sheffield.ac.uk/maths for details), or consult http://www.shef.ac.uk/studyabroad/ for further information. Detailed information is made available at the Study Abroad Fair which takes place in November and applications to take part in the programme have to be completed by early December.

4.9 Incorporating employment into your degree

The University of Sheffield recognises that both students and employers value the benefits that structured work experience can provide as part of a university degree programme. We have two options for incorporating a year in employment into your degree:

1. If you began your degree in Autumn 2018 or later, you may be able to transfer to one of our four "with Placement Year" programmes. In principle, this can be done at any point prior to your final year, subject to agreement by SoMaS. If you are in your penultimate year, you may need to find a placement before being allowed to transfer. These programmes incorporate extra support for finding a placement and developing employability skills, beyond those available to other undergraduates.
2. If you find a placement during your penultimate year, you can add "with Employment Experience" to any of our (non-Placement Year) programmes, subject to successful completion of the placement. This requires transferring degree programmes, which needs to be approved by SoMaS (and any other appropriate departments, for dual degrees).

Under either scheme, you will spend your penultimate year (i.e. the year between Levels 2 and 3 of a three year degree, or between Levels 3 and 4 of a four year degree) in employment. Students typically return from their placement year confident and highly-motivated, often with a graduate job lined up for after their degree.

The placement should involve work connected with your degree programme or with your proposed future employment. We recognize that many mathematics graduates go into graduate jobs that do not use their degree directly. Therefore a placement with, for example, an accountancy firm would be acceptable even if it did not involve the use of university-level mathematics. Students need to find their own company placement and the SoMaS Employability Lead needs to validate the placement. Mathematics students are very much in demand for year-long placements, and many companies with interesting jobs for mathematicians are willing to invest the training effort in year-long placements.

You will typically need to start planning for the placement a year before it starts. You are responsible for getting the placement, but the Careers Service can assist. Those on the Placement Year programme will also have help on offer from the Placement Year Programme Lead.

Your placement will be assessed on a pass or fail basis. It will not count towards your final degree classification; however, you will need to pass a formal assessment and complete the placement year in order to gain the amended degree title. You will be required to complete and submit:

- A skills analysis (1600-2000 words), identifying specific skills that you have gained and/or developed over the course of your placement,
- A reflection summary (600 words) summarising what you have achieved over the year and lessons you have learned for the future.

For further details, see http://www.sheffield.ac.uk/placements/students/year.

5 The Session Timetable for 2018–2019

2018

17 September – 22 September	Intro Week
24 September – 15 December	Autumn Semester Teaching Period (12 weeks)

2019

14 January – 2 February	Autumn Semester Examinations (3 weeks)
4 February – 6 April	Spring Semester, First Teaching Period (9 weeks)
29 April – 18 May	Spring Semester, Second Teaching Period (3 weeks)
20 May – 8 June	Spring Semester Examinations (3 weeks)
5 August – 23 August	Resit Examinations

There are some important points to note about this timetable.

(i) Lectures will begin on 24 September 2018.

(ii) You must be prepared to take examinations immediately on your return after the Christmas Vacation. The January exams will relate only to those modules you completed in the Autumn Semester.

(iii) The May/June examinations will cover the remaining modules. All examinations will last for at least two hours each.

(iv) The week starting Monday 5 November 2018 will be designated as a *Level One reading week* in SoMaS. This week has been set aside to allow you time to consolidate and revise the work of the previous six weeks. There will be no Level One Mathematics or Statistics classes.

(v) The week 13 May – 17 May 2019 will be a revision week during which no Mathematics or Statistics lectures will be given to Level One students. Spring Semester examinations begin in the following week.

(vi) Resit examinations will be held during the period 5 – 23 August 2019 and you should avoid booking holidays etc. during this period.

6 Examinations and Assessment

6.1 The Form of Assessment

For most SoMaS Level One modules, you are examined by a written examination held at the end of the appropriate semester and, in some cases, also by assessed coursework. Details of the form of assessment to be used in each module, how much work is involved and the proportion each part counts towards the final mark will be announced in the first week of the course. Nearer the time of the examinations you will be given advanced notice of the examination rubric in each module and told how to access examples of past papers. Marking of examinations is done anonymously.

You will be given your grade for each of your modules on a scale from 0 to 100. The results of first semester assessments will be given to you as early as possible in the second semester. The results of your second semester assessments will be available probably around the middle of July. The way the grades on the 100–point scale correspond to degree classes is as follows:

70–100	:	Class I
60–69	:	Class II(i)
50–59	:	Class II(ii)
45–49	:	Class III
40–44	:	Pass
1–39	:	Fail

You receive credits for each module that you pass (that is, on which you receive a grade of 40 or more).

6.2 Assessment Criteria

Typical examinations in SoMaS involve several questions each of which will have components of at least some of the following types: (i) explanation of theory developed in the module; (ii) standard problems solvable using methods seen in the module; (iii) more difficult unseen problems requiring knowledge of the module but also requiring some original thought. Students' scripts are assessed using a strict and detailed marking scheme, usually based on method and accuracy marks. The primary criterion is correctness, whether it be of calculation, method or explanation. This produces a set of raw marks, which is then scaled, using the judgement of the examiner, to the University's 100 point reporting scale. The scaling is subjected to a scrutiny process.

Examination papers, including the past papers to which the students have access in advance, carry the distribution of marks between parts of questions.

The internal checker (and, for modules at Level Two and above, the appropriate External Examiner) for each examination paper are provided with copies of the module's objectives/learning outcomes, and these are also distributed to students. The internal checker is asked to complete a proforma indicating how well the paper assesses the learning outcomes.

Examiners are required to follow procedures to ensure the completeness of marking and the accuracy of addition on scripts. The School conducts checks to see that these procedures have been adhered to.

Before the Final Year Examiners' Meetings, final year scripts of borderband candidates are often looked at by the appropriate External Examiner.

The University has a detailed policy specifying the penalties for assessed work that is not handed in on time, see http://www.shef.ac.uk/ssid/exams/assessment. For most continuously assessed work at Level One in SoMaS, the need to give rapid feedback to students means that late submission results in a mark of zero on that piece of work. Special dispensation may be given because of medical problems or extreme personal problems. In this situation, you should contact the lecturer for the module affected as soon as possible. (See also Section 6.5.)

Students have the right to see their examination scripts after they are marked; this generally takes place around Week 3 of Semester 1 (for the previous session's June exams) and Week 6 of Semester 2 (for the January exams).

6.3 Prizes

Walker Prize in Mathematics
The prize was founded in 1950 through the generosity of A G Walker, FRS, Professor of Mathematics in the University from 1947 to 1952. It was named in his honour in 1958.

- Frequency of award: One annually.
- Value of prize: Books to the value of £50 selected by the prize winner and approved by the Head of the School of Mathematics and Statistics.
- Eligible candidates: Level One students taking the programmes of study in Mathematics and Statistics.
- Assessor: The Head of the School of Mathematics and Statistics.
- Criteria for assessment: Course work in Mathematical subjects and performance in the Level One Examination in Mathematics and Statistics.

6.4 Calculators

You will need a calculator for certain examinations and for tests during the semester, and you will probably need one for Problems Classes too (see Section 2). Lecturers will inform classes when this is the case. However, certain calculators — mainly those with a text retrieval facility (which includes many calculators with a graphical display) — are not permitted for use in examinations or tests. During the first semester therefore you will need to get your calculator *officially approved for examinations*. Approval takes the form of a check of the calculator at the Student Services Information Desk (SSiD) in the Students' Union, and the issue of an official sticker to signify approval. You will therefore need to take the calculator to SSiD during the Autumn semester. Calculators on smartphones are not permitted in exams. Mobile phones are *NOT* permitted in any examination venue.

If you are thinking of buying a new calculator, it may be advisable to delay until you have had the chance to check the list of University–approved models.

6.5 Assessment Affected by Illness

It is not uncommon that illness or family difficulties of some kind will, at some point, affect your ability to complete assessed coursework on time, or your ability to revise properly for specific examinations, or your ability to even attend specific examinations. In all such cases you **must**:

- **Complete an Extenuating Circumstances Form** available online at http://www.sheffield.ac.uk/ssid/cics detailing the relevant dates and the coursework / examinations / modules affected and hand this in at the Hicks Student Support Office.
- **If the circumstances are medical,** and you are registered with the University Health Service (UHS), note what it says about filling in the electronic version of the form and submitting it for UHS to add the documentation, and also that the doctor needs to have seen you while you are ill.
- **If you do follow these procedures**, then we will be able to take your adverse circumstances into account for assessment purposes. For example, if you miss an examination because of your adverse personal circumstances, then you would be given the opportunity to take the examination at another time, without prejudice to the assessment process.
- **If you fail to follow these procedures**, then we will have no knowledge of your adverse circumstances and will not be able to take them into account in any assessment. For example, absence from an examination without 'good reason' will always result in an NC ('Not Completed') grade, and you cannot progress until you have taken the resit for that module.

It is essential that students suffering long term personal difficulties complete an Extenuating Circumstances Form each semester to ensure that consideration of their continuing problems is not overlooked. Any student with a disability or chronic medical condition, for whom the Disability and Dyslexia Support Service has produced a learning support plan, need not keep filling in forms to inform us of their condition. In fact, disabilities and chronic medical conditions are not normally regarded as extenuating circumstances, the emphasis being on providing support to help students to do the best they can. However, it may be appropriate to submit an extenuating circumstances form if there is a particular flare-up or complication at a time affecting exams, though a medical note will not be required.

Students studying on a Dual Degree programme should ensure that an Extenuating Circumstances Form is submitted to **both of the departments** involved in their programme.

6.6 Failure to Comply with Assessment Requirements

Failure to attend an examination without adequate reason will result in a grade 0 being awarded. If you have good reason to miss an exam due to circumstances beyond your control, you need to fill in an Extenuating Circumstances Form: http://www.sheffield.ac.uk/ssid/forms/circs. If the circumstances are medical and you are registered with the University Health Service (UHS), note what it says about filling in the electronic (or mobile app) version of the form and submitting it for UHS to add the documentation, and also that the doctor needs to have seen you while you are ill. In all other cases, please take the completed form and any other supporting documentation to SoMaS Reception in F10 as soon as you reasonably can. If you become ill during an exam, please tell an invigilator.

Excuses such as misreading the timetable or oversleeping are not acceptable as reasons for absence, but any student who misses an exam for such a reason should report to SoMaS Reception in F10 as soon as possible. All unauthorized material (such as revision notes, books, etc.) must be left outside the examination hall. This includes notes on scraps of paper. Students should ensure that their pockets are empty of such notes before entering the examination room. Students must also ensure that there are no written notes on their hands when they enter the examination hall and must not write on their hands during an examination. For further details of examination procedures, students should consult the General Regulations relating to Examinations, available at http://calendar.dept.shef.ac.uk/calendar.

Failure to hand in assessed coursework on time without good reason will result in the imposition of a penalty in accordance with the University's Penalties Policy. Late submission of a major piece of assessed coursework, such as a project dissertation, will usually result in the deduction of 5% of the total mark awarded for each of the first 5 'University Working Days' by which the submission is late; work submitted even later than that will receive a mark of 0. For pieces of assessed coursework that contribute only a small percentage of the overall assessment, the Faculty of Science has given the School approval to operate a policy of 'zero tolerance', under which any late submission receives a mark of 0.

Module leaders have the power to award dispensations in cases where the lateness was caused by certifiable medical problems or severe personal circumstances; requests for such dispensations should be made as soon as the problem is known, in writing or by e-mail to the module leader; students making such requests must also complete an 'Extenuating Circumstances Form' and hand it in at SoMaS Reception (F10).

Students who have an impairment or condition that can make it difficult to undertake study-related tasks should contact the **Disability and Dyslexia Support Service** to explore the additional support that can be offered, such as special arrangements for examinations. This service is located in the Alfred Denny Building (see https://www.sheffield.ac.uk/ssid/disability).

6.7 Progression from Level One to Level Two

The rules for progression are given below and apply to the January and June exams taken together:

(i)   You may proceed to the second year without any resit if you have obtained 120 credits in your first year courses.

(ii) If you have fewer than 120 credits but at least 100 credits and you have no mark below 30, then progression to Year 2 is at the discretion of the Board of Examiners; this is unlikely to be given in the event that a core module has been failed. The examiners may, at their discretion, recommend that you be awarded a conceded pass on the basis of your overall performance in the examinations. This is a concession, not a right: if the examiners do not make this recommendation, then you must retake all the modules that you failed.

(iii) If you have fewer than 100 credits or have a mark below 30, then you will be required to resit *ALL* your failed modules.

(iv) If you have one or more 'Not Assessed' or 'Not Completed' modules, you will be required to resit these and any failed modules.

Students on the MMath Mathematics with a Year Abroad must obtain, at the first attempt, an average of at least 59.5 at Level 1 to be permitted to progress to Level 2 of that programme. Those who do not meet this requirement will be transferred to the MMath Mathematics.

Students on the MMath Mathematics with Study in Europe or one of the three MMath with French/German/Spanish Language degrees must obtain, at the first attempt, an average of at least 59.5 on the MAS modules at Level 1 to be permitted to progress to Level 2 of those programmes. Those who do not meet this requirement will be transferred to the BSc of their programme, to the BSc Mathematics with Study in Europe, or to the MMath Mathematics or BSc Mathematics.

Students on the MMath Mathematics with Study in Europe or one of the three MMath with French/German/Spanish Language degrees must normally obtain at least 55 in the MLT units at Level 1 to be permitted to progress to Level 2 of those programmes. Students who do not meet this requirement will be transferred to the MMath Mathematics or BSc Mathematics.

6.8 Resits for the Session 2018–2019

This section is included for information, though it is hoped that you will not need to refer to it.

If you are required to resit any examinations, you will be informed of the arrangements by the University at the same time as you receive your official examination results from Student Services which will be some time in July. Usually you will be required to pay a fee. If you are not obliged to resit a failed module but still wish to do so, then you must contact the Registration and Examinations Office, Level 6, University House, and ask to register for the resit examination.

The resit examinations for 2018–18 will take place in the period 6 – 24 August. International students who wish to make an application for taking their examinations overseas should see http://shef.ac.uk/ssid/exams/exabrinf for more information.

Students who have failed a module at Level 1 may resit on no more than two subsequent occasions. The maximum module mark that can be obtained on resit is the pass mark of 40.

6.9 Plagiarism, Collusion and Unfair Means in Assessment [1]

Avoiding Collusion and Plagiarism

(i)   When preparing essays, projects or other work, you will read widely and become familiar with the work of others. You should ensure that the materials you prepare for submission would be accepted as your own original work. A lecturer or tutor who is assessing your work is interested in your understanding of an idea and you should use your own words to demonstrate your understanding. The selective quoting of material from books and articles is permissible, but the material must always be attributed to its sources by means of quotation marks. In assessed essays, a footnote or brackets naming the author and the title of the text plus the dates of publication would be required, as would a bibliography that provides full references of all the material consulted or used.

The basic principle underlying the preparation of any piece of academic work is that the work submitted must be your own original work. Plagiarism and collusion are not allowed because they go against this principle. Please note that the rules about plagiarism and collusion apply to all assessed and non–assessed work, including essays, experimental results and computer code. Cutting and pasting from web sites would also be considered unacceptable.

Plagiarism is passing of others' work as your own, whether intentionally or unintentionally. The work can include ideas, compositions, designs, images, computer code, and, of course, words. This list is not exhaustive. The benefit accrued could be, for example, an examination grade or the award of a research degree.
   a) If a student submits a piece of work produced by others, or copied from another source, this is plagiarism.
   b) If a student produces a piece of work which includes sections taken from other authors, this is plagiarism, unless the source has been attributed as outlined above. The length of the copied section is not relevant, since any act of plagiarism offends against the general principle set out above. When copying sections from other authors it is not sufficient simply to list the source in the bibliography.
   c) If a student paraphrases from another source without the appropriate attribution, this is plagiarism. Paraphrasing should use a student's own words to demonstrate an understanding and accurately convey the meaning of the original work, and should not merely reorder or change a few words or phrases of the existing text.

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[1] This has been extracted from the University's Notes for Candidates on Non–Invigilated Examinations at http://www.shef.ac.uk/ssid/exams/notes

d) If a student copies from or resubmits their own previous work for another assignment, this is self–plagiarism, and is not acceptable.

(ii) Collusion is a form of plagiarism where two or more people work together to produce a piece of work all or part of which is then submitted by each of them as their own individual work.

a) If a student gets someone else to compose the whole or part of any piece of work, this is collusion.

b) If a student copies the whole or part of someone else's piece of work with the knowledge and consent of the latter, then this is collusion.

c) If a student allows another student to copy material, knowing that it will subsequently be presented as that student's own work, then this is collusion.

d) If two or more students work on an assignment together, produce an agreed piece of work and then copy it up for individual submission, then this is collusion. When producing a piece of work arising out of group work, students should seek the advice of the tutor setting the assigned work regarding the acceptable limits of collaboration.

(iii) Both plagiarism and collusion are strictly forbidden. Students are warned that the piece of work affected may be given a grade of zero, which in some cases will entail failure in the examination for the relevant unit or research degree. The student may also be referred to the Discipline Committee.

(iv) You should follow any guidance on the preparation of material given by the academic department setting the assignment. If in doubt, consult the member of academic staff responsible for the unit of study. There is unlikely to be any objection to you discussing the subject of an essay or project with fellow students in general terms, or to quoting from various sources in the work submitted. However, if you have any problems with an assignment you should always consult your tutor, who will give general advice and help.

7 Student Support

7.1 Personal Tutors

If you are taking Honours Mathematics or a Dual Honours Degree with Mathematics or Statistics in its title, you will be assigned a member of the academic staff of SoMaS as your personal tutor. This person is there to help explain SoMaS and University procedures and for you to consult for general academic guidance and in times of trouble. More technical guidance on mathematical or statistical problems arising in a particular module is better obtained from problem class tutors or the lecturer taking the course.

If at any time you become unhappy with your degree programme, or a particular module, or if you cannot cope, or if you have other problems, you should immediately discuss the matter with your personal tutor. Such problems are often easier to deal with if they are addressed immediately, and indeed talking about them with someone else can often go a long way to help. Your personal tutor will be able to direct you to an appropriate person for more specialist advice if that is necessary. If problems are likely to affect your examination performance, you should inform your tutor immediately rather than waiting until you receive your result.

Arrangements will be made for personal tutors to meet their students at the end of Intro Week and regularly in the first semester. These meetings are intended to help the transition into life at University to be as smooth as possible.

As well as dealing with any questions you may wish to raise, tutors will use the initial tutorials to explain the way in which relevant University systems work, and to inform you of support provided by the University, such as University Health Service, Counselling Service, Students Union Rights and Advice Centre, Harassment Network, gender and ethnic minority advice, and where to find information. Meetings just before Christmas will deal with preparation for examinations and what to do if problems such as illness occur over the examination period. Students are expected to keep these appointments.

After the first semester, tutees are expected to see their personal tutor at least once per semester. Additional meetings may take place at the request of the personal tutor or of the tutee.

SoMaS also has a Women's Tutor whose role is to provide additional support, where required, for female students on personal or very confidential matters, and a corresponding Men's Tutor for male students. There is also a Tutor for Mature Students, who acts as personal tutor to a substantial proportion of the mature students in SoMaS. The Senior Tutor is also the SoMaS Disability Liaison Officer. Students with a disability or specific learning difficulty are advised to contact the Disability and Dyslexia Support Service as soon as they have a confirmed student place, to ensure that any special support is in place as soon as possible (see http://www.shef.ac.uk/disability).

Normally students continue with the same personal tutor throughout their undergraduate career. If for any reason either the tutee or tutor wishes for a change,

they should contact the Senior Tutor. All students are encouraged to keep in contact with their tutor, who will then be in a good position to act as a referee when the time for job applications arrives.

If you have any difficulty in contacting your personal tutor, or they are unable to solve any problem or answer any query, then you can approach the Senior Tutor or other designated staff members (see the list on the SoMaS webpages).

7.2 SoMaS Officers Whom You May Need to Consult

Full SoMaS staff lists, including information about staff who can assist with general academic queries or who have specific teaching related responsibilities, are available via 'Contact Us' under 'People' on the SoMaS webpages http://www.sheffield.ac.uk/maths .

7.3 The Hicks Student Support Office

The Hicks Student Support Office is located in Room F10, F floor of the Hicks Building, and is the administrative centre for our undergraduate teaching. If you need Extenuating Circumstances Forms, other administrative forms or other student or SoMaS information, the staff will be ready to help.

You may be asked to submit coursework or to collect course material from the Hicks Student Support Office.

7.4 How and Where to Obtain Information on Your Course

The primary source of information about your course is the SoMaS website, particularly the page at http://www.sheffield.ac.uk/maths/current. Timetables for SoMaS modules and details of which tutorial group you are in will be available from the SoMaS website by late Intro Week.

The School will use e-mail to contact you with notices about courses, examinations and meetings. The Director of Teaching sends out a regular e-mail "Teaching Bulletin" to students with items such as examinations, module choice, and other matters. Personal tutors and module leaders will also use e-mail to contact students. Instructions on how to access these e–mails will be given to you in Intro Week. **Please check your University e–mail account frequently. For example, you should aim to check your e–mail each weekday.**

Urgent messages will be displayed in the Entrance Foyer, or sent by e–mail.

7.5 Student Mentoring

The University provides a student mentoring scheme to offer further support to new students. Students in SoMaS can apply for a mentor – details can be found below. The transition from home or work to university life can be a challenging, exciting and demanding time, and the scheme aims to make this period of change as easy and enjoyable as possible.

Following your application, you will be matched to a mentor who is a current student at the University, usually from within the same School or Department. Your mentor

will be able to help you settle into your new surroundings and act as a friendly face to help you to 'find your feet'. This is a fantastic opportunity to get an insight into what the year ahead will be like from someone who has already made it through their first year, to help you make the most of yours.

You can apply for a mentor before you start at the University, so you will be able to ask any last minute questions that you may have before you arrive.

Applying for a mentor is easy: details of the scheme and the online application form are available at https://www.sheffield.ac.uk/ssid/mentoring

7.6 Support Services

The Student Advice Centre (see http://www.shef.ac.uk/union/) is located close to the main Reception in the Students' Union Building, and is open for personal callers from Monday to Friday throughout the year.

The Student Services Information Desk (http://www.shef.ac.uk/ssid) is a central point for general information and University services; it is located in the Students' Union and open Monday to Friday 9 a.m. until 5 p.m. Its web pages are a good place to start when looking for help or information within the University.

301: Student Skills and Development Centre offers a range of services for all students:
- Maths and Statistics Help
- Academic Skills workshops
- Study Skills Sessions
- Specialist Dyslexia/SpLD tutorial service
- ELTC Language Support for All programmes
- Writing Advisory Service

301 also offers an Academic Skills Certificate which can be included in your Higher Education Achievement Report (HEAR, www.sheffield.ac.uk/ssid/hear). For more details see www.sheffield.ac.uk/ssid/301/services

The Counselling Service (http://www.shef.ac.uk/counselling) and The University Health Service (http://www.shef.ac.uk/health) are also there to help you; strict confidence is always maintained. It is recommended that all students register with the University Health Service. Details on how to do this will be provided by the University with your registration information.

Nightline is the University of Sheffield's confidential listening and information telephone service. It is run by trained student volunteers, and operates from 8 p.m. until 8 a.m. every night during term time. It offers students everything from the phone number of a twenty–four hour taxi company, to exam dates, times and locations, and information about every issue that can be encountered within student life. The Nightline numbers are 0114 222 8787 (listening) and 0114 222 8788 (information). Calls are free from all university phones – just drop the area code and first two digits of the number.

7.7 Careers Service

Making good career decisions will involve you in thinking about your qualities and inclinations. Researching possible careers is also highly advisable.

The University has an excellent Careers Service, located at Edgar Allen House. There is also a Student Jobshop in the Student Union.

Students are strongly advised to make use of the wide range of resources that the Careers Service has to offer. The Careers Service (http://www.shef.ac.uk/careers/) offers an excellent provision, backed up with a wealth of experience, to help students decide on a career and to find employment after graduation. Services include sessions on career planning, CV writing, job seeking, interview skills, and much else. They also organise an extensive programme of careers events, which provide valuable opportunities to meet prospective graduate employers, and find out what skills they are looking for. You could also talk to the School's Careers Liaison Officer, listed on the 'Contact Us' page of the SoMaS website.

7.8 Voluntary Work

The University encourages its students to consider undertaking some voluntary work. The text below has been provided by the Manager of Sheffield Volunteering, which is based in the Students Union.

> "Volunteering is a great way to get to know the city and its people. You can gain career related experience or simply volunteer for something that appeals. You can do something just for a day or give a couple of hours each week or fortnight. It's really flexible and you won't be asked to help during exams or vacations. Choose from over 100 options in student neighbourhoods and the city centre. Alternatively, we can help you to develop your own volunteer project involving other students and benefiting the wider community. Our staff can help you to find something that is right for you. Training and out–of–pocket expenses are provided too. Set yourself apart. Visit http://www.shef.ac.uk/union/get-involved/volunteering/ or see us in the Union Building".

7.9 Official University Information for Students on the Web

Much of the information you need during your course, or in case of problems, is available on the University's web pages. The key addresses are collected here, for convenience, although many of them appear elsewhere in this handbook too.

Calendar
https://www.sheffield.ac.uk/calendar

Finance
http://www.shef.ac.uk/ssid/finance/index

University guidance on unfair means in the assessment process
https://www.sheffield.ac.uk/ssid/exams/plagiarism

General regulations as to progress of students
http://www.shef.ac.uk/govern/calendar

General regulations relating to Academic Appeals
http://www.shef.ac.uk/govern/calendar

Regulations and procedures for grievances and complaints
https://www.sheffield.ac.uk/ssid/complaints-and-appeals

Student's Charter
http://www.shef.ac.uk/ssid/ourcommitment

Information guide for disabled students
http://www.shef.ac.uk/disability/

Student Services Information Desk (SSiD) Web pages
http://www.shef.ac.uk/ssid

Departmental web pages
http://www.shef.ac.uk/departments/

Handbook for mature students
https://www.sheffield.ac.uk/ssid/mature-students

Information skills resource
http://www.librarydevelopment.group.shef.ac.uk/showcase.html

8 Student Representation

8.1 Staff–Student Forum

The Staff–Student Forum provides a forum for liaison between students and teaching staff about any aspects of studying, learning and teaching within SoMaS. Developments under consideration by the School Teaching Committee (the academic committee overseeing teaching and assessment arrangements within SoMaS) are brought to the Staff–Student Forum for debate, and the discussion is reported back to the Teaching Committee. Student members of the Staff–Student Forum also serve as student representatives on the Teaching Committee.

The Staff–Student Forum is made up of several academic staff and a number of student representatives from each Level. It usually meets twice a semester. In the week before the first meeting in each semester teaching staff in each module are asked to give the student committee representatives an opportunity in a lecture period to gather students' views on topics for discussion. Issues may also be raised with Committee members at any time; a list of committee members and how to contact them is on the Staff–Student Forum notice–board adjacent to Room F10. You can find more information from the web pages at http://www.sheffield.ac.uk/maths/current/representation.

Comments on a particular course would ideally, in the first instance, be drawn to the lecturer's attention. If there is a problem, it is most likely that it will be resolved quickly in this way. If a problem persists, or you do not want to approach the lecturer, you should ask a member of the Staff–Student Forum to raise it at a Forum meeting. Any comments you make are taken seriously, and can enable SoMaS to make improvements to the service you receive. Constructive and well thought–out points are likely to be most effective, and comments commending good practice are welcome (as well as any pointing out perceived deficiencies) since they can lead to good practice being extended.

Student representatives for the Staff–Student Forum will be sought at the start of the Autumn Semester. Please consider the possibility of serving in this important role, this would look very good on your CV. If you are interested you should approach the Director of Teaching, inform your personal tutor or contact the Convenor of the Staff-Student Forum, Dr Istvan Ballai. The Students' Union provides training for student representatives: for further information contact the Union's Education & Representation Secretary, at education.secretary@shef.ac.uk.

8.2 Questionnaires

Near the end of each semester students are asked to complete a questionnaire covering each of their SoMaS modules. Students are strongly encouraged to complete Module Questionnaires for every module they take. These questionnaires are administered electronically, and instructions on how to complete the questionnaires will be issued every semester.

The Module Questionnaires are important to the School. This is your formal opportunity to give your view on aspects of the course – you can also give comments informally via your Personal Tutor, the Staff-Student Forum, or to the lecturer directly.

We are always keen to hear ways to improve our teaching and your learning experience. Considered and thoughtful feedback can provide an extremely helpful input into the School's teaching. In the same way that receiving a piece of marked work with just a mark out of 10 is not as useful as comments showing how you can improve, we would like to encourage you to be specific and constructive in your questionnaire responses. Reasoned and constructive comments you make on modules can be very helpful, both to the individual lecturer concerned, and to the School, so that we can spread good practice.

Lecturers are human beings with feelings, just like students, and if you feel the need to be critical of aspects of a module, please try to offer criticism in a sensitive way. It is always good to read positive comments as well as critical ones, so if you feel that a lecturer is doing something well, please let them know.

The questionnaires and comments are considered by members of the Staff-Student Forum, and by the School's Teaching Committee. Comments have led to changes in School procedures, as well as to alterations in course content and practice of lecturers. They also form a valuable input to the annual appraisal of staff.

The numerical data is published on the Staff-Student Forum webpage, as well as on the Staff-Student Forum notice-board; for data-protection reasons, individual comments are viewed only by Staff-Student Forum members and individual lecturers.

Your considered feedback plays a valuable part in improving our teaching.

8.3 Sheffield University Maths Society (SUMS)

There is a Maths Society, SUMS, run by students from SoMaS, which organises social, academic and sporting events. There will be an opportunity to join the Society during Intro Week.

9 Health and Safety

9.1 Smoking

Students are reminded that smoking is prohibited on all University premises; this includes the area under the canopy at the main entrance to the Hicks Building. In addition, we request that you refrain from smoking on the steps immediately outside the Hicks Building.

9.2 First Aid

First Aid boxes are available in the Hicks Student Support Office (Room F10), and the Porters Lodge (Hicks Foyer, D Floor). Lists of qualified first–aiders can be found outside, or near to, these locations.

9.3 Fire Alarm

If the fire alarm sounds, please proceed calmly to the nearest exit and assemble in the designated areas. For the Hicks Building the designated assembly point is on the concourse under the road bridge. You MUST move away from the building and not hang around by the entrance doors. **DO NOT** use the lifts. **DO NOT** re–enter the building until you have been told it is safe to do so by a fire officer. Note that the alarm is tested each Monday morning at about 9:50am (for about 30 seconds).

Please ensure that you follow the instructions of the Fire Officers.

10 Degree Programmes: Structure and Administration

10.1 Introduction

This section lists all Single and Dual Honours Degree Programmes involving Mathematics/Statistics as a major component; gives some general notes on structure and administration; and lists detailed requirements at Level One for each of these Degree Programmes.

10.2 List of Degree Programmes

DEGREES IN THE FACULTY OF SCIENCE:

SINGLE HONOURS
MMath/BSc Honours Mathematics
MMath/BSc Mathematics and Statistics
MMath/BSc Honours Mathematics with Study in Europe
MMath Honours Mathematics with a Year Abroad
MMath/BSc Honours Mathematics with French Language
MMath/BSc Honours Mathematics with German Language
MMath/BSc Honours Mathematics with Spanish Language
BSc Honours Financial Mathematics

DUAL HONOURS
BSc Honours Mathematics and Philosophy

DEGREES IN THE FACULTY OF SOCIAL SCIENCES:

DUAL HONOURS
BA Honours Accounting & Financial Management and Mathematics
BA Honours Economics and Mathematics
BA Honours Business Management and Mathematics

DEGREES IN THE FACULTY OF ENGINEERING:

DUAL HONOURS
MComp Honours Computer Science with Mathematics
BSc Honours Computer Science and Mathematics

10.3 Transferring between Degree Programmes

If you wish to change degree programme, you will need to complete a 'Change of Status Form'; you should contact the Senior Tutor in the first instance.

Changes of programme are not guaranteed: changes between MMath and BSc are usually straightforward, but changes involving other departments will depend on individual circumstances.

10.4 Change of Choice of Modules

The University allows you to change your choice of modules in the first three weeks of any semester. *If you do change your options early in a semester it is your responsibility to ensure not only that your timetable for that semester works but also that you will have suitable options available in future semesters for you to be able to complete your degree* (for example, you will have covered all prerequisites for your future choices). Change of choice of modules is done online.

The system can be accessed via MUSE. Log in as normal and go to the My Record tab for the link to the online system. Follow the simple instructions on screen. Your core modules will already be listed when you access the online add/drop screens. Once you have entered and submitted your request to add and drop optional modules, your department will check and approve, or decline, your choices. You will receive an automated email, confirming when your record has been updated. If there are any problems with your choices, you will receive an email from your department advising you what action to take.

The online system is only available to undergraduate students on a full-time programme of study. Part-time students, distance learning students, postgraduates and students taking modules in the Institute of Lifelong Learning will need to use the paper 'Add-Drop' form. Add-Drop forms are available from the Student Services Information Desk (SSiD) in the Union of Students, and can also be downloaded from the SSiD web site. When you have completed the form, you must have it signed, to signify the School's approval, by the Programme Leader for your degree programme, or by the Senior Tutor: see the list of members of staff authorized to sign such forms on the 'Current Students' section of the SoMaS webpages. The form should then be handed in at the SSiD.

10.5 Checking Module Registration

Shortly after the beginning of each semester the University compiles a computer record of modules for which each student is registered. This is used, for example, for preparing examination timetables. During the fourth week of each semester you should check that your own details on this computer record are correct. You do this by going to the Student Services Information Desk (SSiD) web page (http://www.shef.ac.uk/ssid) and following the links to your University Records. If you find any inaccuracy you should take immediate steps to correct it. To do this you should change your modules as described in Section 10.4.

10.6 Unrestricted Units

The rules for some degree programmes allow the choice of a number of unrestricted units. These units may be chosen from Mathematics/Statistics modules or from those offered by any other department in the University. It is your responsibility to determine the **prerequisites** and **timetable** for such a choice and to get approval. The School will not permit its students to take any mathematical module from another University department as an unrestricted module at any Level.

Note that taking unrestricted units outside the School of Mathematics and Statistics at Level One may limit the mathematics and statistics modules available to you in

later years since you must have taken the necessary pre–requisites in order to take modules at Levels Two, Three and Four. Students on some degree programmes are able to take unrestricted units at Levels Two and/or Three. You may not generally choose Level 1 modules as unrestricted modules at Levels 2, 3 or 4; as an exception, modules from the Modern Languages Teaching Centre (MLTC) may be permitted. Therefore, if you wish to take unrestricted modules at Levels 2/3 (and this is permitted by your degree programme) other than from the MLTC, you will need to ensure that you take any prerequisite modules at Level 1.

10.7 Course Requirements for Degree Programmes

The following pages provide summaries of the course requirements relating to Level One modules within SoMaS. The requirements laid down in other subjects (if relevant) are contained in the University Regulations. If you are taking another subject, **you must consult the other department** for details of compulsory modules and possible options (if any).

The Level One courses in **applied mathematics** and **probability & statistics** are designed so that they can be taken by those whose **A–level mathematics did not include either one or both of these subject areas**. The number of credits for each unit mentioned hereafter is given on the right hand side of the list.

Faculty of Science Degrees

MMath/BSc Honours Mathematics

You must take:

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS112	Vectors and Mechanics	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

And units to the value of 20 credits from the following:

MAS115	Mathematical Investigation Skills	20
Unrestricted units to the value of 20 credits		

MMath/BSc Honours Mathematics and Statistics

You must take (a)

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20
MAS115	Mathematical Investigation Skills	20

And units to the value of 20 credits from the following

MAS112	Vectors and Mechanics	20
Unrestricted modules		

BSc Financial Mathematics

You must take (a)
MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

And
(b) units to the value of 40 credits provided by the Department of Economics or the School of Management, as laid down in the University Regulations.

MMath/BSc Honours Mathematics with Study in Europe

You must take (a)
MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20

(b) *one* **of the following choices:**
(i)
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

Modern Languages Teaching Centre (MLTC) units to the value of 40 credits

(ii)
MAS112	Vectors and Mechanics	20
MAS113	Introduction to Probability and Statistics	20

MLTC units to the value of 40 credits

(iii)
MAS112	Vectors and Mechanics	20
MAS114	Numbers and Groups	20

MLTC units to the value of 40 credits

Options (ii) and (iii) require the permission of the Director of Teaching.

MMath Mathematics with French Language / German Language / Spanish Language

You must take:
MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

And
(b) units to the value of 40 credits provided by the Modern Language Teaching Centre, as laid down in the University Regulations.

MMath Mathematics with a Year Abroad

You must take:

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS112	Vectors and Mechanics	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

And units to the value of 20 credits from the following:

| MAS115 | Mathematical Investigation Skills | 20 |

Unrestricted units

BSc Mathematics with Placement Year, MMath Mathematics with Placement Year, BSc Mathematics and Statistics with Placement Year, MMath Mathematics and Statistics with Placement Year

These are the Placement Year equivalents of the corresponding degree programmes described above.

Dual Honours

BSc Honours Mathematics and Philosophy

You must take (a)

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS114	Numbers and Groups	20

And

(b) Units to the value of 40 credits provided by the Department of Philosophy as laid down in the University Regulations, and unrestricted units to the value of 20 credits which may include units provided by the School of Mathematics & Statistics.

Faculty of Social Sciences Degrees

BSc Dual Honours Economics and Mathematics

You must take (a)

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS113	Introduction to Probability and Statistics	20
MAS114	Numbers and Groups	20

And

(b) Units to the value of 40 credits provided by the Department of Economics as laid down in the University Regulations.

**BA Dual Honours Accounting & Financial Management and Mathematics,
BA Dual Honours Business Management and Mathematics**

You must take (a)

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
MAS113	Introduction to Probability and Statistics	20

And

(b) Units to the value of 60 credits provided by the School of Management or Department of Economics as laid down in the University Regulations.

Faculty of Engineering Degrees

**MComp Honours Computer Science with Mathematics,
BSc Honours Computer Science and Mathematics**

You must take (a)

MAS110	Mathematics Core I	20
MAS111	Mathematics Core II	20
and either		
MAS113	Introduction to Probability and Statistics	20
or		
MAS114	Numbers and Groups	20

And
(b) Units to the value of 60 credits provided by the Department of Computer Science as laid down in the University Regulations.

11 Short Module Descriptions

The following pages contain short descriptions of modules in the Level One programme in Mathematics and Statistics

MAS110   MATHEMATICS CORE I

Autumn Semester (20 credits): 4 lectures per week
Pre–requisites: A–Level Mathematics or equivalent.

Aims/Description: This course reviews and extends some topics from A-Level, and introduces students to new topics in university mathematics. The topics covered include set theory, permutations and combinations, differentiation and integration, trigonometry, exponentials and logarithms, complex numbers, hyperbolic functions and differential equations.

Teaching Methods: Lectures, Problem Solving/Example Classes.
Assessments: Formal Examination, Coursework.

MAS111   MATHEMATICS CORE II

Spring Semester (20 credits): 4 lectures per week
Pre–requisites: MAS110

Aims/Description: This module aims to extend the material from MAS110. The central aims of this course will be to learn how to interpret the geometry of functions with more than one variable, solve systems of linear equations, and use calculus to understand the graphs of functions with several variables and the volumes that they bound. Material covered will include, but is not limited to, plane and solid geometry, matrix multiplication, linear equations, Gaussian elimination, graphs and level sets of functions with two variables, partial derivatives, volumes, and double integrals.

Teaching Methods: Lectures, Problem Solving/Example Classes.
Assessments: Formal Examination, coursework.

MAS112 VECTORS AND MECHANICS

Autumn & Spring Semester (20 credits): 2 lectures per week
Co-requisites: MAS110, MAS111

Aims/Description: The module begins with the algebra of vectors, essential for the study of many branches of applied mathematics. The theory is illustrated by many examples, with emphasis on geometry including lines and planes. Vectors are then used to define the velocity and acceleration of a moving particle, thus leading to an introduction to Newtonian particle mechanics. Newton's laws are applied to particle models in areas such as sport, rides at theme parks and oscillation theory.

Teaching Methods: Lectures, Problem Solving/Example Classes.
Assessments: Formal Examination, Coursework.

MAS113 INTRODUCTION TO PROBABILITY AND STATISTICS

Autumn & Spring Semester (20 credits): 2 lectures per week
Co-requisites: MAS110, MAS111

Aims/Description: The module provides an introduction to the fields of probability and statistics, which form the basis of much of applicable mathematics and operations research. The theory behind probability and statistics will be introduced, along with examples occurring in diverse areas. Some of the computational statistical work may make use of the statistics package R.

Teaching Methods: Lectures, Problem Solving/Example Classes.
Assessments: Formal Examination, Coursework.

MAS114 NUMBERS AND GROUPS

Autumn & Spring Semester (20 credits): 2 lectures per week
Co-requisites: MAS110, MAS111

Aims/Description: The module provides an introduction to more specialised Pure Mathematics. The first half of the module will consider techniques of proof, and these will be demonstrated within the study of properties of integers and real numbers. The second semester will study symmetries of objects, and develop a theory of symmetries which leads to the more abstract study of groups.

Teaching Methods: Lectures, Problem Solving/Example Classes.
Assessments: Formal Examination, Coursework.

MAS115   MATHEMATICAL INVESTIGATION SKILLS

Autumn & Spring Semester (20 credits): 2 lectures per week
Co-requisites: MAS110, MAS111

Aims/Description: This module introduces topics which will be useful throughout students' time as undergraduates and beyond. These skills fall into two categories: computer literacy and presentation skills. Various computer packages are introduced in other modules; these share some programming capabilities, and one aim of this module is to develop programming techniques to perform mathematical investigations within the context of these mathematical packages. Students will also meet the typesetting system LaTeX, preparing reports and presentations on mathematical topics.

Teaching Methods: Lectures, Problem Solving/Computer Classes.
Assessments: Portfolio of work, Presentation.