



Course Guide for the BSc Degree

in

# **Data Science**

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# 1 General Information

This booklet is a guide prepared by the Department of Statistics for students on the Data Science degrees (G302 and G303). You should retain this booklet, as you will need to consult it from time to time throughout the year. If you are reading this in hard copy or PDF, please note that the up to date version of this booklet is maintained online:

[warwick.ac.uk/stats/courses/handbooks](http://warwick.ac.uk/stats/courses/handbooks)

A further extremely valuable source of information is the University's online information site (insite) available at [warwick.ac.uk/insite](http://warwick.ac.uk/insite). From here there are links to all student information and specifically to [my.warwick.ac.uk](http://my.warwick.ac.uk) where you can access information and resources that are personal to you. Further information is available from the Department's web page at [warwick.ac.uk/stats](http://warwick.ac.uk/stats).

## 1.1 Background

The global demand for graduates with high-level knowledge, understanding and skills in both Computer Science and Statistics is huge, and still growing. The Warwick BSc in Data Science degree exists to satisfy part of this demand in a particular way, through a carefully designed course that has strong, high-level mathematical underpinning.

The course is organised jointly by the Departments of Statistics and Computer Science, with collaboration also from other Warwick departments (most notably the Warwick Mathematics Institute and the Warwick Business School). Primary organisational responsibility for the BSc Data Science course rests with the Department of Statistics.

The first two years of the course are largely foundational, designed to equip students with a firm grounding in the essential parts of mathematics, statistical theory and methods, and computing. The final year offers students a wide range of options and opportunities to specialize, as well as a substantial Data Science Project that gives an opportunity for each student to gain valuable practical experience and a taste of innovative research.

The first year counts 10%, the second year 30% and the third year 60% towards the final BSc degree mark.

## 1.2 Aims

The Warwick BSc in Data Science aims to provide an unrivalled education in the highly complementary areas of computer science and mathematical statistics, to produce graduates who will be in high demand and who ultimately will be capable

of leadership roles in the rapidly growing field of Data Science. In common with other mathematical science degree courses at Warwick we aim to:

- Attract well-qualified students.
- Provide an intellectually stimulating environment.
- Help students develop key intellectual skills.
- Provide a challenging education in mathematical statistics and computing, and their applications in the intelligent use of data to answer important questions.
- 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.

Detailed objectives for each year are to be found at the start of the relevant section.

### 1.3 Careers

There is a massive choice of career opportunities for Data Science graduates in many spheres, including commerce (especially e-commerce), finance, government, genomics and other areas of "Big Science", entertainment and sport, education and academic research. Graduates from Warwick's BSc degree in Data Science, with its strong emphasis on core knowledge and skills and mathematical foundations, will be highly adaptable to new data-related challenges as they arise, perhaps in hitherto unforeseen fields. See Section 8.1 of this Course Guide for detailed information on Careers.

### 1.4 Potential for RSS Accreditation

The department is currently applying for conditional accreditation by the Royal Statistical Society (RSS) of the BSc in Data Science.

Further information on the Royal Statistical Society can be found on their webpage: <https://www.rss.org.uk>.

## 2 Summary of Course Regulations

### 2.1 The Definitive Source for Course Regulations

The definitive Course Regulations for all degree courses in the Department of Statistics are derived from the most recent on-line version of this handbook, which are held on the Department of Statistics website:

[warwick.ac.uk/stats/courses/handbooks](http://warwick.ac.uk/stats/courses/handbooks)

The lists of modules and other advice that appear in the printed version are provided as a convenience to students. Some of the information in the printed version of the Course Guide may become outdated as the academic year progresses. The definitive source for the course regulations is therefore the Department of Statistics web page mentioned in the previous paragraph.

## 2.2 First Year

After completing the first year the students will have:

- Made the transition in style and pace from school to university-level learning in the mathematical sciences.
- Been introduced to the basic concepts in university mathematics, including the notion of proof, and the applications of mathematics to problems outside mathematics.
- Laid the foundations of knowledge, understanding and techniques necessary to proceed to the second year.

The core load in the first year is **126** CATS points. You may, if you choose, take additional modules. The maximum load is **141** CATS points. The only exception is that for students taking 24 CATS of Language options, the maximum load is **150** CATS points. Since there are no listed optional modules in the first year, permission must be sought and granted in order to take any additional modules by filling in an unusual option form.

You must take the Core modules listed in the following table, (which gives for each module, the code, the title, the CATS credit and the term in which it is taught).

The core modules for the first year of the Data Science degree are considered to amount to a full academic year's work (126 CATS credit) and there is no requirement for you to take any additional modules. However, if you choose, you may register for additional, optional modules.

Additional modules may have no effect on your overall average mark for the year (see Section 5.1 for an explanation of how your average mark is calculated). Bear in mind an extra module is a big commitment and you must be careful not to take on too much.

Any additional modules and the marks you gain in them will appear on your academic record. It can be worth doing additional modules for the skills you gain, as for example, in the case of foreign languages.

<i>Core Modules</i>	<i>CATS</i>	<i>Term</i>
CS118 <a href="#">Programming for Computer Scientists</a>	15	1

<b>Core Modules</b>	<b>CATS</b>	<b>Term</b>
CS126 <a href="#">Design of Information Structures</a>	15	2
IB104 <a href="#">Mathematical Programming I</a>	12	3
MA106 <a href="#">Linear Algebra</a>	12	2
MA137 <a href="#">Mathematical Analysis</a>	24	1 and 2
MA138 <a href="#">Sets and Numbers</a>	12	1
ST104 <a href="#">Statistical Laboratory</a>	12	2 and 3
ST115 <a href="#">Introduction to Probability</a>	12	2
ST116 <a href="#">Mathematical Techniques</a>	12	1

The above lists contain all the Core modules available to First Year students on the G302 degree. These are consistent with the University Course Regulations. Full descriptions of each module can be found online, see Section 2.5.

- Any modules not listed (including foreign languages) are classed as *unusual options* and permission to take these modules must be obtained by completing an Unusual Option form, which must be returned to the Student Support Office by the specified deadline. For more information and restrictions on unusual options see Section 4.3.1 Unusual Options. The form is available from the Student Support Office or online:

[warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms).

### Assessment and Examinations

Some modules are assessed wholly or in part on written work submitted during the academic year. The deadlines for submission of such work will be announced by the lecturers and tutors responsible for teaching such modules. Failure to obey these deadlines will entail loss of marks. Most examinations are held in Term 3. Exceptions include ST116 which will be examined at the end of Term 1, and MA137 and MA138 which are partially examined at the start of Term 2.

## 2.3 Second Year

After completing the second year, students will have:

- Covered a range of carefully selected material in computer science and statistics, and studied some of it in depth.
- Acquired sufficient knowledge and understanding to be in a position to make an informed choice of options in their final year and to have covered the background necessary to pursue these options.

The minimum and normal load in the second year is **120** CATS points. The maximum load is **150** CATS.



Candidates for Honours are required to take at least 120 CATS including the core modules and at least 12 CATS of optional modules from the list below.

<b>Core Modules</b>		<b>CATS</b>	<b>Term</b>
CS258	Database Systems	15	1
CS260	Algorithms	15	1
CS261	Software Engineering	15	2
ST202	Stochastic Processes	12	1
ST208	Mathematical Methods	12	1
ST218	Mathematical Statistics Part A	12	1
ST219	Mathematical Statistics Part B	12	2
<b>Optional Modules</b>		<b>CATS</b>	
CS249	Digital Communications and Signal Processing	15	
CS255	Artificial Intelligence	15	
IB207	Mathematical Programming II	12	
MA258	Mathematical Analysis III	12	
MA260	Norms, Metrics and Topologies	12	
ST221	Linear Statistical Modelling	12	
ST222	Games, Decisions and Behaviour	12	

- Any modules not listed (including foreign languages) are classed as *unusual options* and permission to take these modules must be obtained by completing an Unusual Option form, which must be returned to the Student Support Office by the specified deadline. For more information and restrictions on unusual options see Section 4.3.1 Unusual Options. The form is available from the Student Support Office or online:

[warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms).

- Note that WBS normally restricts pre-registration for IB-modules to 30 CATS for Data Science students.

### 2.3.1 Some Specific Advice for Second-Year Data Science

When choosing their optional modules at the start of Year 2, Data Science students should be looking ahead to possibilities for their *third year* modules (in both Computer Science and Statistics), to ensure that they do not miss pre-requisite 2nd-year modules for those 3rd-year modules that especially interest them.

The Statistics option ST221 Linear Statistical Modelling is strongly recommended for all students intending to do substantial data analysis in their third year modules (including their third-year Data Science Project).

## 2.4 Third Year

After completing the third year, students will have:

- Developed skills in formulating and solving both abstract and applied problems, and in presenting cogent and logical arguments.
- Developed a strong background in at least one specialism, thus providing a basis for further study or employment in related fields.

The minimum and normal load in the third and final year is **120** CATS points. The maximum load is **150** CATS. Candidates for honours are required to take the Core module, *at least* 60 CATS points from *List (A)*, with at least 30 CATS from each of Computer Science and Statistics, and *at most* 60 CATS points of modules from *List (B)*.

<i>Core Module</i>		<i>CATS</i>
CS350	Data Science Project	30
 <i>List (A)</i>		 <i>CATS</i>
CS301	Complexity of Algorithms	15
CS331	Neural Computing	15
CS342	Machine Learning	15
CS346	Advanced Databases	15
CS355	Digital Forensics	15
CS356	Approximation and Randomised Algorithms	15
ST301	Bayesian Statistics and Decision Theory	15
ST323	Multivariate Statistics	15
ST337	Bayesian Forecasting and Intervention	15
ST340	Programming for Data Science	15
ST343	Topics in Data Science	15
ST344	Professional Practice of Data Analysis	15
 <i>List (B)</i>		 <i>CATS</i>
CS313	Mobile Robotics	15
CS324	Computer Graphics (Suspended for 18/19)	15
CS325	Compiler Design	15
CS345	Sensor Networks and Mobile Data Communications	15
CS347	Fault Tolerant Systems (Suspended for 18/19)	15
CS348	Social Informatics	15
CS352	Project Management for Computer Scientists	15
ST305	Designed Experiments	15
ST318	Probability Theory	15
ST329	Topics in Statistics	15

<i>List (B)</i>		<i>CATS</i>
ST332	Medical Statistics	15
ST333	Applied Stochastic Processes	15
ST335	Finance and Financial Reporting	15
ST339	Introduction to Mathematical Finance	15
ST341	Statistical Genetics	15
ST342	Mathematics of Random Events	15

- Any modules not listed (including foreign languages) are classed as *unusual options* and permission to take these modules must be obtained by completing an Unusual Option form, which must be returned to the Student Support Office by the specified deadline. For more information and restrictions on unusual options see Section 4.3.1 Unusual Options. The form is available from the Student Support Office or online:

[warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms).

- For more information about modules offered by the Department of Mathematics see the Mathematics Department Undergraduate handbook at <http://www2.warwick.ac.uk/fac/sci/math/undergrad/ughandbook/>.
- Certain third year options have prerequisites which are not in the compulsory component of the second year. It is the responsibility of each student to be in a position to understand the modules chosen.
- Note that WBS normally restricts pre-registration for IB-modules to 30 CATS for Data Science students.
- Students should note that in awarding one of the BSc degree classes (see Section 5.8, outcomes a-d) a candidate must achieve marks in that class or higher in whole core and *listed modules* (i.e. modules appearing in the letter-labelled Lists of the corresponding year) taken in the final year equating to at least 48 CATS points in total. In addition, to be awarded an Honours degree students must pass (at the 40% level) whole modules equating to at least 168 credits over years 2 and 3, including at least 80 credits in the final year.
- It is a student's responsibility to ensure that the modules they are following are permitted — either because the modules are given explicitly as options by the regulations or because permission has been sought and granted by filling in an unusual option form.

## 2.5 Module Descriptions

Full descriptions of module content, methods of assessment, etc., can be found online by following hyperlinks from the above module lists. Please use the fol-

following link in order to access the fully up to date module lists:

[warwick.ac.uk/stats/courses/handbooks](http://warwick.ac.uk/stats/courses/handbooks).

## 3 Teaching and Learning

### 3.1 Lectures and Tutorials

The main form of teaching is the traditional lecture course. Lectures are usually very condensed and you are unlikely to understand everything the lecturer does at the time. As a result, most lecture courses in the first two years are supplemented by tutorials, supervisions, seminars or classes (the name varies according to the department concerned). Because the number of students in each group is usually quite small, these tutorials form your main opportunity for asking questions and clearing up difficulties. If you still have questions, you can ask the lecturer directly during their office hours.

For first year students the Mathematics Department arranges supervisions of one hour per week with a research student. These supervisions cover all Mathematics courses. For other courses and departments, the arrangements are usually made by individual lecturers. The lecturing style in Economics is somewhat different from that of other departments. Background reading and the preparation of additional notes which amplify and explain the lectures are usually essential.

Only around 25 percent of your study time is spent in lectures and tutorials. The remaining 75 percent is for independent study. Its impossible to overstate how important this time, that you spend working on your own or with friends, is to developing your understanding of the material. Lecturers usually provide additional material (exercise sheets, extra reading) and working through this is essential. If you leave this work to the end of the year, you will find when revising that you are unable to prepare properly for the exam because you will not have developed the necessary understanding and skills. A loose analogy is that the exams are the equivalent to running a marathon, and if you haven't spent the year training properly then you will not have developed the fitness that is necessary to do well in the race. There is more advice about study skills in Section 3.9.

### 3.2 Attendance and Engagement

Our duty as a department is to deliver a coherent degree course with well-presented lectures backed up by support, usually in the form of small classes. Your duty is to try hard to learn, and not to impede the attempts of others. In particular this means that you should attend lectures and support classes, having prepared for them by revising prerequisite material and by attempting all example sheets promptly. A failure to do this usually leads to boredom (through lack of

understanding) and an inadequate performance.

Attendance at lectures and tutorials does not contribute formally to the award of a degree, nevertheless it is our expectation that you attend these. We collect records of attendance and work handed in for tutorials which become part of your academic record, even if the work is not for credit towards the assessment of a module. Personal tutors will see these records and will discuss your progress and engagement with the course at their meetings with you.

### 3.2.1 Attendance Monitoring Scheme

We are required by the University to monitor eleven separate ‘points of engagement’ each year for all undergraduate and post-graduate students in the Department. The student monitoring points are listed online at; [warwick.ac.uk/stats/courses/currentstudents/pointsofengagement](http://warwick.ac.uk/stats/courses/currentstudents/pointsofengagement) .

We have deliberately chosen the points of engagement to be activities which it is in your interest to do anyway (seeing personal tutors at the start and the end of each term, attending classes of certain core modules, etc). You should therefore comply with all of these without fail. Should difficulties arise (for example, illness preventing you from attending at a particular time) then you should contact the Student Support Office *and* your personal tutor with an explanation as soon as possible.

**International students should be particularly aware of the consequences of not meeting the required points of engagement.** The Academic Office is obliged to report to the UK Visas and Immigration department of the Home Office if any student has been found not to be engaging with and attending their degree course. This has serious implications for your visa status.

A record of all monitoring points for all students will be kept by the Student Support Office, who will regularly check to see if any students are missing monitoring points.

If a student misses three monitoring points in an academic year, then the student will be required to meet with their Personal Tutor. The University Academic Office will also write to all students who miss three monitoring points - the student’s Department will be cc’d into this correspondence.

If a student misses any further monitoring points in a year, dependent upon circumstances, the student will be required to meet with the Senior Tutor. If a student misses six monitoring points in a year then the Department reserves the right to invoke the formal University process referring the student to the Continuation of Registration Committee as set out in University Regulation 36 – Governing Student Registration Attendance and Progress; [warwick.ac.uk/services/gov/calendar/section2/regulations/reg36registrationattendanceprogress](http://warwick.ac.uk/services/gov/calendar/section2/regulations/reg36registrationattendanceprogress).

### 3.3 The Personal Tutor System

Every student has a member of staff assigned as their personal tutor. Your tutor is there to help sort out any problems connected with your university career, and you must make a point of seeing them at least twice a term, (usually during the first couple of weeks and last couple of weeks) so that they know how you are getting on. You must respond promptly if they ask to see you and it is important to keep your personal tutor informed of any academic or personal problems that are affecting your performance.

Students can continue to contact their personal tutor via email during a year abroad or an intercalated year. If your personal tutor takes sick or study leave you will be assigned a temporary personal tutor while your original tutor is away from the department.

Some specific ways in which your personal tutor can help are:

- Providing general academic advice on progress and development, including discussing possible option choices and disclosing exam marks and their implications.
- Giving you help and advice about pastoral and non-academic matters insofar as they are able and advising you about where to find further help on the campus if you need it.
- Writing a letter of reference when you apply for jobs or grants (see also Section 8.7).

Personal Tutors should:

- Advertise two ‘office hours’ each week, starting on the half-hour, when students can consult them.
- Communicate with their students regularly, including via email.

In addition your personal tutor has certain formal duties to represent you in disciplinary matters. For more information about what you can expect from your personal tutor please visit; [warwick.ac.uk/seniortutor/informationforstudents](http://warwick.ac.uk/seniortutor/informationforstudents)

**First Year Tutorials:** During the first term of the first year students meet with their personal tutors once a fortnight to discuss some mathematics exercises. A short exercise sheet will be made available beforehand with questions based on module ST116 Mathematical Techniques. You must complete the exercises to the best of your ability and hand them in to your tutor, who will give you feedback on your written work. This feedback and the discussions with your tutor will help you make the adjustment to university level mathematics — with the emphasis it places on rigorous arguments and abstract concepts. It is also important for you to

get used to tackling exercises in your own time. This is essential for your success at university.

### **3.4 Changing Tutor or Tutorial Group**

Should you wish to change your personal tutor for any reason, please email the Student Support Office (*stats.ug.support@warwick.ac.uk*) who will arrange a meeting for the Senior Tutor to discuss this with you.

Similarly, if you wish to change tutorial/supervision groups, please discuss this with the Student Support Office.

### **3.5 The Departmental Senior Tutor**

The Departmental Senior Tutor ensures that the personal tutoring system runs smoothly and efficiently within the Department and provides help and advice to the Personal Tutors. At the same time, the Senior Tutor serves as a link between the Department and the Faculty Senior Tutor. The Senior Tutor may also interact directly with students to help in specific matters whose nature require resources and/or support beyond the role of the Personal Tutor (for example, cases of personal issues with the student's Personal Tutor, cases of temporary withdrawals, cases of concerns for lack of attendance, specific cases of mitigating circumstances, and so on).

### **3.6 Director of Student Experience and Progression**

The department's Director of Student Experience and Progression (DSEP) is responsible for working with students to enhance the student experience. The DSEP works closely with the department's SSLC, and will carefully consider any students' views or feedback.

### **3.7 The Mentor System**

The Statistics SSLC administers a mentor system, where older students help first year students settle in to their university life. A mentor provides an informal point of contact to students where they can ask questions about their course, modules and wider university issues such as nights out, accommodation, societies and sports.

The mentor system in no way replaces the Personal Tutor system. Students must meet with their personal tutors at least twice a term and keep their personal tutors informed of any academic or personal problems.

### 3.8 Personal Transferable Skills

As well as supporting your academic studies, the preparation of assessed work and your active participation in seminars and tutorials will also help you develop skills which will be invaluable in your later career and in job applications and interviews. These ‘personal transferable skills’ include the ability to write clearly and concisely, to explain your work clearly to others and to present your work in a professional manner through the use of word processing and other computer packages.

After completing your degree you will have:

- Acquired basic skills in IT and had the opportunity through the choice of options and other activities to develop these further.
- Acquired independent study and working skills.

### 3.9 Study Skills

It is important to understand that university education is based on independent study. Lecture courses are very compressed. You will not learn everything from the lectures. You will need to spend time supplementing the lecture material, filling in the gaps, working through examples, and studying textbooks. Each module has an associated CATS weighting which you can use as a guide: a CAT represents 10 hours notional work so a 12 CATS module may contain 30 hours of lectures, 60 hours of independent study and 30 hours of revision.

Here are some specific recommendations to think about:

- Plan to spend 35-40 hours per week on academic work in term-time. However be flexible in order to give more time to any core modules which you are finding difficult.
- Be prepared! Ensure that lecture notes are re-read/understood before the next lecture. Always consult the textbook(s).
- Attempt example sheets as soon as possible — easy questions check/aid comprehension, harder ones deepen it.
- Attempt to understand the direction of a module (read the Aims and Objectives) — try to write a brief narrative or commentary on your notes at the halfway mark and again at the end.
- Praise and reward yourself when you perform well or understand something difficult.
- In accounting for study time, each hour between 10pm and 8am should only count as 30 minutes!



If you feel in any doubt about your study skills you should consult your personal tutor and look out for notices advertising special study skills sessions which are posted on departmental notice boards.

If English is not your first language, it is important to practise at every opportunity. This department encourages the use of English at all times. If you wish to improve your skills, you should visit the English Language Teaching Unit who offer both Pre-sessional and In-sessional courses in English:

[warwick.ac.uk/fac/soc/al/study/learn-english](http://warwick.ac.uk/fac/soc/al/study/learn-english)

### **3.10 Feedback to Students**

Feedback is an essential part of learning as it identifies gaps in your knowledge and understanding and also provides guidance on how to improve. There are various means by which the department provides feedback but most are linked with coursework.

It is important that you attempt all coursework questions. This will give you immediate feedback on whether you have assimilated the material in the lectures and can apply it to example problems. Keep in mind that mathematics takes time, so if you cannot solve a problem straight away read the lecture notes or a textbook and then try again.

If you are still stuck, talk to some of your fellow students. They might be able to explain material that you have not understood and pick up on misconceptions. Some modules have online forums where you can post questions that will be read by your fellow students (and the module leader). Don't be shy to ask questions. The fact that you have questions shows that you are engaging with the material! Contribute to the process by posting answers on the forum or explaining material to your fellow students. Explaining mathematics will help you develop your communication skills and deepen your understanding!

Make sure to hand in all coursework in a timely fashion. Even if the coursework is not for credit it is an important tool to obtain feedback and you limit your own learning if you do not submit your work. If you have managed to produce only partial solutions to the problems it is important that you submit these as this will influence how and what material the tutor is going to cover in the tutorial. Once coursework has been returned make sure to read carefully through the comments. If you are in doubt as to what the comments mean please ask the marker who will be happy to explain. If solutions are provided please compare these carefully to your own work. But keep in mind that attempting your own solutions engages you in much deeper learning than simply noting a provided solution.

Participate actively in lectures and support classes like tutorials by providing an-

swers to questions but also by asking questions. This will give the lecturer or tutor a very immediate way to provide feedback to you. To do this effectively it is important that you prepare by revising your lecture notes and attempting the problem sheets.

All lecturers in Statistics have twice weekly office hours and they are happy to see students during these times. Module leaders will be happy to answer questions regarding their modules, although you should make sure you have spent some time on revision so that this can happen effectively. Please make sure to take note of the office hours. They are usually advertised next to the lecturer's office door. Some staff also advertise these on their web pages or state them at the start of the module.

Finally, the personal tutor is available to provide general academic advice. As above, personal tutors offer twice weekly office hours in which they are happy to receive students and provide feedback on their overall academic performance. For assistance on the academic content of individual modules consult with the relevant module leader.

### **3.11 Warwick Skills Portfolio Award**

The Department encourages students to engage with the Warwick Skills Portfolio Award (WSPA) to develop your personal, academic and career management skills, improve your marks, impress potential employers and network with other Warwick students. The WSPA ([warwick.ac.uk/services/skills/awards/wspa](http://warwick.ac.uk/services/skills/awards/wspa)) is free and available to all undergraduates at Warwick.

The award is achieved by participating in three eligible activities, setting yourself action points related to these, and producing a series of written, reflective entries. At the start of the award you will be allocated a coach, who will comment on your written entries and provide you with on-going support and feedback.

You should aim to complete the WSPA in the academic year in which you start working towards the award. Most people find they can comfortably achieve this, provided they plan which activities they will take part in and when. You will be able to select your preferred deadline (end of May or end of September) when you complete the 'Getting Started' Moodle course.

The Undergraduate Skills Programme Workshops (USP) are a series of skills-specific workshops designed to enable you to develop your personal, academic and career management skills. Each workshop will focus on a specific skill area and help you to enhance your confidence and competence in that area. At the end of the academic year you will receive a certificate of attendance listing each workshop you have attended. For further information see:

[warwick.ac.uk/services/skills/events/ugworkshops](http://warwick.ac.uk/services/skills/events/ugworkshops).

The University of Warwick runs a dedicated development programme for female students to help you take hold of your personal development and realise your ambitions. The bespoke course runs over three and a half days and is free. For more information, applications and dates of courses visit:

[warwick.ac.uk/services/skills/personal/sprint](http://warwick.ac.uk/services/skills/personal/sprint).

### 3.12 The Library

The Library has a designated Academic Support Librarian for each academic department. The Academic Support Librarians are able to provide advice about Library services.

Students can consult the Library website at [warwick.ac.uk/library](http://warwick.ac.uk/library) for general information, and their subject web pages for support in starting research in their subject area:

[warwick.ac.uk/services/library/subjects/sciences/mathematics-statistics](http://warwick.ac.uk/services/library/subjects/sciences/mathematics-statistics)

The Library also manages a number of learning & teaching spaces:

- The Learning Grid: [warwick.ac.uk/services/library/using/libspaces/learning\\_grid](http://warwick.ac.uk/services/library/using/libspaces/learning_grid)
- The Learning Grid Rootes: [warwick.ac.uk/gridrootes](http://warwick.ac.uk/gridrootes)
- The Learning Grid Leamington: [warwick.ac.uk/gridleamington](http://warwick.ac.uk/gridleamington)
- The Teaching Grid: [warwick.ac.uk/teachinggrid](http://warwick.ac.uk/teachinggrid)

### 3.13 IT Services

IT Services provide the essential resources and support necessary to give all members of the University access to information technology for research, teaching, learning and administration purposes. If students have problems using the facilities or systems provided by IT Services, they can go to the Helpdesk located on the ground floor of the Library building, telephone 024 765 73737 or email [helpdesk@warwick.ac.uk](mailto:helpdesk@warwick.ac.uk).

Every student and member of staff is entitled to register to use the services provided by IT Services, which can be accessed from anywhere on campus. Information on setting up an account, accessing the network from on and off campus, printing and purchasing computers is available on-line at [warwick.ac.uk/services/its](http://warwick.ac.uk/services/its) . IT Services also produce information on acceptable use of University IT facilities for students and staff: [warwick.ac.uk/regulation31](http://warwick.ac.uk/regulation31).

### 3.14 Communication

The department expects to be able to communicate with you via your University email — and you should check your account regularly (at least once a day). Please check with IT Services to find out more, see Section 3.13. You should also check your pigeonhole and departmental notice board at least once a day. You should let the department know in a timely manner if you are going to be away from the University.

### 3.15 Student Staff Liaison Committee (SSLC)

The Department of Statistics has a Student Staff Liaison Committee covering its entire undergraduate programme. The committee brings together a group of academic staff with approximately fifteen elected student representatives selected from each year of each degree course. The electoral process is designed to ensure that the views and interests of our diverse student body are fairly represented. The SSLC meets twice a term to discuss a variety of academic issues, student welfare and social activities.

The SSLC is one of the most important places for staff and students to evaluate and comment on the teaching, the resources, the student guidance and support, and the social environment provided to undergraduates by the department. Its key functions include:

- Monitoring and receiving comments on the strengths and weaknesses of modules offered to undergraduates in the Department.
- Contributing to the discussions concerning module and course development.
- Commenting on relevant aspects of department policy developed and discussed by the departmental Teaching Committee. Recent examples include major course revisions, guidelines on timetables for the return of assessed work and the procedures surrounding cheating in assessed work.
- Providing feedback on all Statistics modules (see Section 3.16)
- Looking at the computing, library and other resources and discussing ways of improving student familiarity with and access to these.
- Helping to arrange social events.

The effectiveness of the SSLC depends largely upon the ability of student representatives to reflect the problems and interests of all students, but also upon the willingness of students to approach their representatives. We hope that you will be prepared to identify problems and make suggestions that your representatives can raise at meetings of the SSLC, and that you will want to find out about the committee's discussions and activities (see SSLC notice board).

## 3.16 Student Feedback

### 3.16.1 Introduction

Student feedback is important to the department. Lots of feedback is given informally to personal tutors and lecturers (and this is very useful to us), but there is also a formal mechanism for collecting it.

Halfway through, and at the end of the lecture modules taught by Statistics staff, you will be asked to complete a questionnaire (feedback form). For modules taught by Computer Science staff, feedback will be requested at the end of each module. This gives you the opportunity to express your view on various aspects of the module. However, feedback is only useful if it is provided in a considered and thoughtful way. These notes have been prepared to answer some of the questions students often ask about the feedback process, and to help ensure that the feedback you give provides a really helpful input to the teaching in both departments. Please take a few minutes to read them.

### 3.16.2 Why is Feedback Collected?

The Department is constantly looking for ways to improve the learning experience we provide for our students. We can only do this if you let us know your reactions to our modules — not only to identify problems, so that members of staff can take steps to eliminate them, but also to learn about the things you find helpful, so that we can disseminate best practice in teaching and learning throughout the Department and further.

### 3.16.3 What Constitutes Useful Feedback?

You are accustomed to being on the receiving end of feedback when your work is returned with comments from the marker. If you think about what you do and do not like as feedback on work, you will be in a good position to provide helpful feedback on modules. Here are some points to start you thinking:

**Be specific — be constructive:** For example, a bare mark on a piece of work is not very helpful, since it gives no guidance as to what was wrong with it. In the same way, just saying that you did not like a module does not give any indication to the lecturer as to what steps he/she should take to improve the module. Was the pace too slow? Too fast? Did you find it hard to see the relevance of the material? Or is the fact that you didn't enjoy the module perhaps nothing to do with the teaching, but rather means that you made a mistake in an option choice and chose a module which turned out not to fit in with your personal interests? Make good use of opportunities for open-ended comments to explain these points.

**Mention the positive as well as the negative:** It is always good to know what you got right but discouraging to read comments on work which only mentions

what went wrong with it. When a lecturer is doing something well, and you let them know that, then it gives them encouragement to do it again. So when you comment on a module, try to mention any features which you particularly enjoyed or found helpful.

**Be honest with yourself:** People often talk about ‘teaching and learning’ to show that the educational process requires participation from two people — the teacher and the student. You cannot expect to get full benefit from a module if you simply attend lectures and do any assessments — you need to do the module reading, participate fully in example classes, etc. So before you indicate that you did not get much out of a module, ask yourself honestly what you put in.

**Try to separate personality from content:** During your time at Warwick you may be taught by several dozen members of staff. It would be surprising if you liked all of them equally as people, or if there were not some who had habits and mannerisms which irritated you! But try to keep your reaction to lecturers’ personalities separate from your reaction to their teaching. It is possible for you to regard someone as extremely irritating but still get a lot out of their teaching.

**Be considerate:** Lecturers are people with feelings just like students. Sometimes you may need to be critical of aspects of a module, but you should try always to offer criticism in a sensitive way. Comments such as ‘X is the worst lecturer I have ever had’ are neither useful nor constructive.

**Be conscientious:** *Please* complete feedback forms for all your modules. If we only get a small number of forms returned, then we may well get a biased idea of students’ views — and that idea may not coincide with yours. So don’t lose your opportunity to be heard!

### 3.16.4 What Happens to the Feedback?

1. Questionnaires are distributed by a member of the Student Staff Liaison Committee (SSLC). They collect completed questionnaires and produce a one-page summary.
2. The summary and questionnaires are passed to the Student Support Office who forwards them for comment to the relevant lecturer(s).
3. The lecturer writes a response and returns everything to the Student Support Office who will forward it to the Head of Department.
4. The Head of Department checks the questionnaires and response, noting for wider dissemination particular compliments or suggestions and returns everything to the Student Support Office.
5. The response is copied to the SSLC, and then filed.

6. The SSLC considers the response and passes unresolved items to the Department's Teaching Committee for further action/assessment.

Thus your constructive feedback is seriously considered and is essential to monitoring and improving teaching.

## 4 Module Registration

### 4.1 Registration of Modules

We use the University Online Module Registration System (eMR) which is accessed via [warwick.ac.uk/evision](http://warwick.ac.uk/evision). First year students will find that their *core* subjects are already registered on eMR, only requiring the addition of any chosen optional modules. Adjustments can be made to this initial list of modules at key times during the academic year. As a student it is your responsibility to ensure that you are registered for the correct modules and assessment methods and that you do this at the correct specified times. Details of registration procedures will generally be sent to you via the department at the appropriate points in the academic year. You must check your pigeonhole, your Warwick email address and the department UG notice boards regularly and follow the instructions provided.

The initial information you supply to eMR does not involve you making a permanent commitment to take the selected modules, nor stop you from following other modules. However, you must ensure that all details held on eMR are correct at the time of the final deadline for registration as these details constitute your final examination timetable. Full details will be circulated at the start of the academic year and at the beginning of each term.

Students should note that eMR may allow you to register for module combinations that may not comply with course regulations. Therefore it is important that you check your module choices against the course regulations: see Section 2 of the handbook. Modules that are not listed in the option lists of your year will require departmental approval as unusual options: see Section 4.3.1.

*Module Registration Deadlines:* Module registration through the eMR system opens in the first week of the Autumn term for first year students (returning students may access the system during the two weeks prior to the start of the Autumn term), and closes at the end of week three. Further amendments to your module registrations (both additions and deletions) can be made in the first three weeks of the Spring Term. After week 3 of Term 2 module de-registration is possible until the first day of Summer term by requesting such from the Student Support Office.

You must adhere to the deadline for registering for modules, otherwise we may ignore any marks awarded for that module. You must adhere to the deadline for de-registering: absence from any examination for which you are registered means

a credit of zero. Students are advised not to leave finalizing the registration until the last day. Further, students should note that it is a university rule that if assessed work or class tests which contribute more than 10% towards the final mark for a module are submitted by the student for credit then it is no longer possible to de-register from the module even if this takes place before the general deadline for de-registration.

*Pre-registration of selected modules for the following year:* At the beginning of Term 3, both the Economics Department and Warwick Business School (WBS) run online pre-registration for their modules. This encourages you to start planning and choosing your options in advance and also assists these departments with timetabling. Some departments will cap a module if the numbers reach capacity, so pre-registration on popular modules is recommended. As WBS and Economics also run their own registration systems alongside eMR, they request that if you decide to register or de-register from a module at some stage mid-term, you advise them in person as well as changing your registration on eMR.

The WBS deadline for changing registered modules is Week 3, Term 1 for Autumn Term or full year modules, and Week 2, Term 2, for Spring Term modules. Please note that if you register on eMR but not on my.wbs, you will not be considered to have registered for the module.

## 4.2 Module Codes by Department

ST	Statistics	CS	Computer Science
MA	Mathematics	PX	Physics
IB	Warwick Business School	PH	Philosophy
EC	Economics	LL	Language Centre

## 4.3 Choice of Optional Modules

There is an enormous range of optional modules. Compulsory modules and some of the optional modules are listed in the body of this handbook. However, in principle, it is possible to take most modules available anywhere in the University as an unusual option but permission must be sought as described in Section 4.3.1 below.

In considering which options to take, the following points may help:

- Think about where your interests lie and what the module might lead to later.
- Check the prerequisites of modules that you wish to take in the current year. Also, consider which optional modules might be pre-requisites for modules that you wish to take in later years.
- You can try a module and deregister later if you decide not to offer it for



examination. However, make sure that you adhere to de-registration rules and deadlines. Talk to your personal tutor and to your friends (especially those who have taken the module before!).

- For students starting in 2013 or later, additional modules taking your load over 120 CATS may have no effect on your overall average mark for the year, although they will still appear on your HEAR transcript. (See Section 5.1 for an explanation of how your average mark is calculated). An extra module is a big commitment and you must be careful not to take on too much.

It is a student's responsibility to ensure that the modules they are following are permitted either because the modules are given explicitly as options by the regulations or because permission has been sought and granted by filling in an unusual option form.

### 4.3.1 Unusual Options

An unusual option is a module that is not listed within the option lists of your current year. Before considering unusual options, make sure that you have registered for any optional modules that you might need as prerequisites for modules you wish to take in later years. Also, consider your overall workload.

Unusual options allow you to take modules tailored to your individual interests. Obtaining permission to take an unusual option is relatively straightforward, just follow the instructions given below. To take a module as an unusual option you need to fill in an Unusual Option form which are available from the Student Support Office or online:

[warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms).

After obtaining the agreement (and signatures) of the module leader and your personal tutor submit the form to the Student Support Office who will forward it to the Course Director for approval.

#### **Deadlines:**

Forms for Term 1 modules must be submitted to the Student Support Office no later than week 3 of term 1. Students may register for Term 2 and Term 3 modules at the start of Term 2 provided a signed unusual option form is submitted no later than week 3 of Term 2. Failure to submit the forms with the relevant signatures within the time-frame specified above may result in your de-registration from the relevant module.

#### **Restrictions:**

In most cases there are no problems in obtaining everyone's agreement however there are some restrictions that you should note:

- Subject to approval by the Course Director, students may take up to 30 CATS of unusual options provided their total CATS load does not exceed the specified maximum load for their respective year.
- First and second year modules may not be taken as unusual options by students in their final year with the exception of Language Centre modules as permitted under the rule below.
- Language modules with stage 1 learning outcomes may not be taken by students in their final year. While stage 1 “Beginners” level modules are not allowed, “Beginners accelerated” modules are permissible.
- Modules that are listed as core modules in subsequent years may not be taken as unusual options.

The Institute for Advanced Teaching and Learning (IATL) offers a number of interdisciplinary modules which may be taken as unusual options subject to approval. Further information on these modules can be found at:

[warwick.ac.uk/fac/cross\\_fac/iatl/activities/modules](http://warwick.ac.uk/fac/cross_fac/iatl/activities/modules)

## 4.4 Foreign Language Modules

### 4.4.1 General

Students may take modules offered by the Language Centre. All language modules taken for credit must be taken as unusual options and you must follow the procedure described above to register for them. Take particular note of those rules which restrict unusual language options during the final years of the degree.

### 4.4.2 Language Centre

The Language Centre ([warwick.ac.uk/fac/arts/languagecentre](http://warwick.ac.uk/fac/arts/languagecentre)), located on the ground floor of the Humanities Building, offers academic modules for exam credit in a variety of languages at a wide range of levels. Most modules can be taken as year-long 24 or 30 CATS modules, a small number of modules are available as 12 or 15 CATS modules running only for one term.

Enrolment for these courses for 2018/19 will take place on the following dates:

- Friday 28 September (Welcome Week) 10am-4pm
- Tuesday 2 October (week 1) 10am-4pm
- Friday 28 September (Welcome Week) 10am-4pm

Further information on enrolment of academic modules can be found here: [warwick.ac.uk/fac/arts/languagecentre/enrolmentinformation/academicenrolment](http://warwick.ac.uk/fac/arts/languagecentre/enrolmentinformation/academicenrolment)

Modules approved by the Course Director as an unusual option are free to undergraduates who register for them formally as part of their degree. Academic modules may also be taken independently from degree study; a separate fee is required for this.

If you are looking for something a little more relaxed, then instead of academic modules you may consider the Lifelong Language Learning programme. Classes are not as intense as academic modules and are taken by students, staff and members of the public. A course fee applies.

## 5 Examinations and Progression

### 5.1 Examinations

The Examinations Section of the Academic Office is responsible for organising university examinations. Their webpages [warwick.ac.uk/services/academicoffice/examinations](http://warwick.ac.uk/services/academicoffice/examinations) contain comprehensive information about examinations.

All our exams, including solutions and marking scheme, are moderated and checked by both an internal member of staff and an external examiner. Moreover, the Department of Statistics holds scaling meetings at which all STxxx modules are considered in order to take into account any systematic negative impact that might have affected any of its modules.

Personal Tutors are allowed to disclose to their tutees provisional marks (as a percentage) for each exam/assessment taken by that tutee. Please note that such marks are provisional and are subject to ratification/amendment by the Senate of the University and by External Examiners.

Students should also be aware that in deciding a degree classification Boards of Examiners will take note of circumstances other than the candidates' overall mark such as, for example, ill health of the candidate and exceptional performance on individual modules. However it is very important that documentary evidence of any mitigating circumstances is communicated to the Student Support Office before the Mitigating Circumstances Panel meets at the end of Term 3 (see Section 5.13).

#### 5.1.1 End of Year Marks

The average mark for a given year is calculated as follows. If you have taken the core modules together with enough options to reach or just exceed the minimum load (126 CATS in year 1, and 120 CATS in year 2), but no further optional modules, then it is the average mark for your module marks weighted according to their CATS. If you have taken additional modules beyond the normal load (126

CATS in year 1, and 120 CATS in year 2), then the average mark for the year is either the arithmetic (CATS weighted) average of all your module marks, or the arithmetic (CATS weighted) average of some selection of your module marks, whichever is the greater. We select which options to include in the calculation so as to maximise your resulting percentage, but we only consider selections which satisfy the course regulations (in particular, include all the core modules).

### 5.1.2 Calculation of Examination Credits

The first year counts 10%, the second year 30% and the third year 60% towards the final BSc degree mark; i.e. if  $S_1$ ,  $S_2$ ,  $S_3$  denote the % credits obtained at the end of years 1, 2 and 3 respectively, then the overall degree % mark is

$$C = (10S_1 + 30S_2 + 60S_3)/100.$$

The credits  $S_1$ ,  $S_2$ ,  $S_3$  are calculated as follows:

$$S_k = \max \left( \frac{\sum x_i c_i}{\sum c_i} \right)$$

where  $x_i$  is the score on module  $i$  with CATS load  $c_i$ , and the maximum is taken over all subsets of the modules you have taken in year  $k$  that satisfy the regulations for that year.

## 5.2 First Year Examinations

Most modules are examined in the main Term 3 exam period. However you should be aware that there is an examination for Mathematical Techniques at the end of Term 1, and exams in Analysis and Sets and Numbers at the beginning of term 2.

The first year Exam Board for the Faculty of Science will consider your results at the end of term 3.

The possible outcomes of the first year examinations are as follows:

- a. Permitted to proceed to the second year of study.
- b. Required to resit.

In order to progress to the second year of the degree programme (outcome a) you must pass (with a module mark of 40 percent or above) the following modules:

- CS118 Programming for Computer Scientists
- CS126 Design of Information Structures
- MA106 Linear Algebra
- ST104 Statistical Laboratory

- ST115 Introduction to Probability

You must also pass at least 80 CATS of whole modules including CS118, CS126, MA106, ST104 and ST115, and have an average mark for the year of 40 percent or more. Your average mark for the year is calculated in the way described in Section 5.1.

For students allowed to proceed to the second year of study your average mark for the year will be used to determine a classification as follows:

- Class one - First
- Class two (division one) - II.I
- Class two (division two) - II.II
- Class three - Third III

This classification will not form part of your transcript but will give you an idea of how you are progressing.

If you do not meet the above requirements then the Exam Board will require you to resit certain modules in September, as detailed in Section 5.4 below.

There are two possible outcomes of the September resits:

- a. Permitted to proceed to the second year of study.
- b. Required to withdraw.

Your first year counts ten percent towards the total credit for your degree. If you have met the requirements for progression to the second year in June then it is your average mark for the year as calculated above that determines the contribution of the first year to your overall degree mark, which is then used to determine the classification of your final degree. If you are required to do resits in September the average mark carried forward is calculated with the marks for failed modules replaced by a pass mark of 40% for those modules which have been passed on resit.

### 5.3 First Year Examination Results

The first year Examination Board meets on the last Thursday of term 3 in the morning. After the end of the meeting module marks and corresponding decisions will be released to personal tutors. Once personal tutors have received this information, you will be informed that you can collect your marks from your personal tutor (usually after 2pm on this day).

You are strongly encouraged to meet with your personal tutor in person to discuss your results. If you are unable to meet with your personal tutor on Thursday afternoon you should let your personal tutor know in advance. In these circumstances

it is likely that to obtain your module marks you will have to wait until they are available online from the MyWarwick web-pages ([warwick.ac.uk/students](http://warwick.ac.uk/students)) from mid July onwards.

Students should note that personal tutors are not usually available during the vacation, nor will they normally give marks out by email or phone. Also, personal tutors will not disclose marks to any third party (e.g. friends or family).

If you are required to resit any modules then you will receive a letter from the Academic Office during the vacation. This will be sent to your permanent home address unless you have completed a vacation address form at the enquiry desk in the Academic Office. It is your responsibility to ensure that correspondence sent to you during the vacation is sent to the correct address.

## 5.4 First Year Resits

### 5.4.1 General

First year students who have failed to meet the required standard in any one of the 5 main modules listed in Section 5.2 will normally be offered the opportunity to resit the final examination before the start of the next academic year. These resits are usually around the first week of September. You will be informed by your personal tutor of any resits you are required to take when you collect your examination results in the last week of the summer term.

University requirements are that all students must return to Warwick University to sit their examinations. The only students who are allowed to choose to sit overseas are those students whose registered home address is in India, in which case they are able to sit in New Delhi only, or those whose registered home address is in China or Hong Kong who will be able to resit examinations in Hong Kong. The Exams Office identifies these students and sends a resit letter offering them the option of taking resit exams abroad.

All students who are required to take resits will be notified by post, so if you have left University before the end of term and your contact details are incorrect *you may not receive a resit letter in time.*

Unless your resit is a *first attempt* (see below) the average mark carried forward is calculated with the marks for failed modules replaced by a pass mark of 40 for those modules which have been passed on resit. You are required to pass the resit examinations before you are allowed to proceed to the next year of your degree. If you fail your resit examinations you will then be *Required to Withdraw*.

Students should note that resit marks are calculated on a resit examination basis **ONLY**. Coursework marks are **not** taken into account when calculating the resit mark (with the exception of resits for WBS modules).

### 5.4.2 Resits ‘As a First Attempt’

In certain circumstances (for example, illness on the day of an exam) you may be permitted to resit as a first attempt. (See Section 5.13 below.) In this case your resit will be treated as the first instance of your sitting that exam, and it is that mark that you will carry forward.

## 5.5 Second Year Examinations

Most second year modules are examined in the main term 3 exam period. The University webpage contains general information on examinations:

[warwick.ac.uk/services/academicoffice/examinations/](http://warwick.ac.uk/services/academicoffice/examinations/)

In order to proceed to the third year students must pass (at the 40% module pass mark) at least 60 CATS.

To qualify for a BSc Honours degree a candidate must pass (at the 40% module pass mark) in the final two years contributing to the degree classification, whole modules equating to at least 168 credits in total, including at least 80 credits taken in the final year. For more on this see:

[warwick.ac.uk/services/academicoffice/quality/categories/examinations/conventions/-ug13](http://warwick.ac.uk/services/academicoffice/quality/categories/examinations/conventions/-ug13)

For any second year student (whether on Honours or Pass) the possible outcomes of the second year examinations are as follows:

- a. Class one - First I
- b. Class two (division one) - II.I
- c. Class two (division two) - II.II
- d. Class three - Third III
- e. Permitted to proceed to the final year of an Honours course.
- f. Fail.

Students in group (e) have failed to obtain an overall Honours classification but have been permitted by the examiners to continue with an Honours course.

Students in group (f) have the right to resit the second year examinations the following June without residence at the University. A student who remains in group (f) following these resits will be required to withdraw. Special papers are not usually set, but examiners give exam scripts by resit students special consideration.

## 5.6 Second Year Examination Results

It is your responsibility to ensure that you understand what actions are required from you when your results become available. So please talk to your personal tutor if the following instructions are not clear enough to you.

The Exam Board for second year students does not take place until the week after the end of the summer term so second year students cannot obtain their results from their personal tutors. However module marks will be made available to students for all years online via the MyWarwick pages ([warwick.ac.uk/students](http://warwick.ac.uk/students)) from mid-July and second year students are advised to check their results on these pages. Alternatively, they may collect their marks from their personal tutor at the beginning of the next term in October.

As the second year results are not released until after the end of term, the outcome of the second year Examination Board (as described in Section 5.5) will also be made available on a secured webpage you can access using your Warwick login.

Second year students who are required to resit or withdraw, or whose degree status is otherwise changed will be sent a letter which provides the contact details of a senior member of the department who will be able to give additional guidance.

All letters (in particular, *letters informing you of any resits you may be required to take*) during the vacation will be sent to your permanent home address unless a *vacation address* form is completed at the Enquiry Desk in the Academic Office. It is your responsibility to make sure that any correspondence sent to you during the vacation is directed to the correct address.

You should be aware that staff dealing with examination results may not always be present at University in the vacations. You should not expect to be able to contact your Personal Tutor in the vacations, nor that requests or enquiries will be responded to within a matter of days, as might be expected in term-time.

## 5.7 Third Year Examinations

University examinations are mostly held in Term 3. The University webpage contains general information on examinations:

[warwick.ac.uk/services/academicoffice/examinations](http://warwick.ac.uk/services/academicoffice/examinations)

Students should be aware that in deciding a degree classification Boards of Examiners will take note of circumstances other than the candidates' overall mark such as, for example, ill health of the candidate and exceptional performance on individual courses.

To qualify for a BSc Honours degree, a candidate must pass (at the 40% module pass mark) in the final two years contributing to the degree classification, whole



modules equating to at least 168 credits in total, including at least 80 credits taken in the final year. For more on this see:

[warwick.ac.uk/services/academicoffice/quality/categories/examinations/conventions/ug13](http://warwick.ac.uk/services/academicoffice/quality/categories/examinations/conventions/ug13)

## 5.8 Final Year Outcomes

For any final year student there are 6 possible outcomes of the final examinations. These outcomes are based on the weighted average C of the final years' percentage together with the percentage(s) of previous years (see Section 5.1.2).

The outcomes are:

- a. Class one - First I
- b. Class two (division one) - II.I
- c. Class two (division two) - II.II
- d. Class three - Third III
- e. Pass.
- f. Fail.

The decision on the outcome is based not only on the value of C but also on marks obtained in individual examinations - see Section 5.7 above.

Students in group (f) have the right to resit the final year examinations the following June without residence at the University. Special papers are occasionally set and examiners treat resit students as special cases.

A third year Pass student who achieves a credit C that is greater than 40% (based on the normal loads in year 2 and 3) and satisfies the rules of Section 5.7 is awarded BSc Honours in the appropriate class.

## 5.9 Third Year Examination Results

It is your responsibility to ensure that you understand what actions are required from you when your results become available. Please talk to your personal tutor if the following instructions are not clear enough to you.

Examination results for third year students are released after the relevant Board of Examiners has finished meeting in week 10 of the summer term. Students in these years can obtain their results from their personal tutors on Thursday afternoon of Week 10. You are strongly encouraged to meet with your personal tutor in person to discuss your results. You should make suitable arrangements with your tutor *in good time, before the last week of the summer term* to collect your marks. You cannot assume that your personal tutor will be available after the end of term.

All letters (in particular, *letters informing you of any resits you may be required to take*) during the vacation will be sent to your permanent home address unless a *vacation address* form is completed at the Enquiry Desk in the Academic Office. It is your responsibility to make sure that any correspondence sent to you during the vacation is directed to the correct address.

You should be aware that staff dealing with examination results may not always be present at University in the vacations. You should not expect to be able to contact your Personal Tutor in the vacations, nor that requests or enquiries will be responded to within a matter of days, as might be expected in term-time.

## 5.10 Exit Qualifications

Occasionally some students may find themselves in the position where they are either unable to continue with their studies, or where it has not been possible for the University to award them with the qualification for which they were registered. This can include the below scenarios:

- Students who have not met academic progression requirements having exhausted all available opportunities to remedy academic failure via resits
- Students who withdraw due to personal or medical reasons
- Students who are restarting on another degree programme

For students who find themselves in this position, the University has developed Exit Qualifications in order to recognise their achievements to date. Boards of Examiners may recommend the award of either a Certificate of Higher Education (CertHE) or a Diploma of Higher Education (DipHE).

A full breakdown of the total minimum credit to be taken and passed by students in order for Boards of Examiners to be able to recommend each qualification can be found on the following webpage; [warwick.ac.uk/services/aro/dar/quality/az/-exitawards](http://warwick.ac.uk/services/aro/dar/quality/az/-exitawards)

## 5.11 Student Academic Appeals Procedure

Under certain defined circumstances and as per the University Calendar (University Regulations) students may appeal against decisions relating to their academic progress or outcomes. These may be summarised broadly as follows:

- Final-year undergraduate students may appeal against the award of a particular degree class or if they have not been awarded a qualification. For an appeal to have any chance of success it should be based on relevant evidence which was not available to the Board of Examiners when its decision was reached. Further the reason why the evidence was not available at the time the Board met should be provided.

- First-year and intermediate-year undergraduate students have the right to appeal only against a decision that they be required to withdraw from their course of study, and then only if they are in possession of relevant evidence which was not available to the Board of Examiners when its decision was reached.

Further information and details of the process can be found in the University Calendar (see Regulation 42) or at [warwick.ac.uk/services/academicoffice/examinations/students/appeals](http://warwick.ac.uk/services/academicoffice/examinations/students/appeals)

## 5.12 Departmental Assessment Strategy

The Department of Statistics has a Departmental Assessment Strategy, which can be viewed at: [warwick.ac.uk/stats/courses/assessmentstrategy](http://warwick.ac.uk/stats/courses/assessmentstrategy)

Assessment is a mixture of formal examinations and assessed coursework. The assessment arrangements for STxxx coded modules can be found in the Assessment Handbook: [warwick.ac.uk/stats/courses/assessment\\_table\\_1819.pdf](http://warwick.ac.uk/stats/courses/assessment_table_1819.pdf)

## 5.13 Mitigating Circumstances

Mitigating or extenuating circumstances are those events which have had a detrimental effect on your study, to the point that it is in your interest to draw your department's attention to them and ask for them to be considered in mitigation of poor performance. Such circumstances include (but are not limited to) illness, both bodily and emotional; the severe illness or death of a close family member; a shocking or traumatic personal experience. In addition, sudden, unexpected changes in family circumstances might affect your ability to make academic progress as a consequence of their demonstrable emotional impact upon you, and may also be considered as mitigation.

Extenuating circumstances can broadly be classified into three types:

- Mitigating circumstances impacting upon your performance in examinations.
- Long-term chronic conditions, dealt with by Reasonable Adjustment, see Section 7.5.
- Short-term illnesses or occurrences affecting your ability to submit coursework on time, for which the appropriate action is to apply for an extension, see Section 5.15.

Long term chronic conditions (normally greater than a term in duration and that are likely to continue) and disabilities are dealt with using reasonable adjustment, see Section 7.5. However, a significant deterioration of a permanent or chronic condition already reported and covered by reasonable adjustments, is classed as a mitigating circumstance and/or a justification for an extension request.

This section of the handbook is concerned with circumstances affecting your performance in examinations or parts of examinations.

In the event of a short-term illness or occurrence impacting your ability to submit a piece of assessed work on time, you should not submit a mitigating circumstances form and instead should seek for an extension as described in Section 5.15.

If you have mitigating circumstances that have impacted modules from outside of the Department of Statistics, it is your responsibility to ensure that you inform the department who delivered that module of the mitigating circumstances in good time, and within the relevant guidelines and deadlines for that department.

The official University guidelines covering mitigating circumstances, including the procedure for submitting a Mitigating Circumstances Declaration form, can be found on the following web-page:

[warwick.ac.uk/services/academicoffice/examinations/students/mitigatingcircumstances](http://warwick.ac.uk/services/academicoffice/examinations/students/mitigatingcircumstances)

The Mitigating Circumstances Declaration form can be found on the following webpage:

[warwick.ac.uk/stats/courses/currentstudents/forms/](http://warwick.ac.uk/stats/courses/currentstudents/forms/)

The University is aware that in some cultures it is considered shameful or embarrassing to disclose the details of these kinds of circumstances to those outside one's family. This is not the case in the prevailing UK culture and you should be aware that your Department and the University are fully supportive of students in difficult circumstances and want to assist if at all possible. If you feel inhibited from talking to a tutor or other member of staff in the first instance, you may also consider talking to a member of your SSLC, the Students' Union, or a counsellor for initial, informal advice.

Mitigating circumstances which may have affected your performance in an examination or any part of an examination and associated evidence are reviewed by the departmental Mitigating Circumstances Panel which makes a recommendation to the Board of Examiners.

The final year Mitigating Circumstances Panel includes the departmental Senior Tutor, the Director of Undergraduate Studies, the Exam Secretary of your year group and the Head or Deputy Head (Teaching and Learning) of the Department. The Mitigating Circumstances Panel for first and second years includes a sub-group of the above.

In order for your circumstances to be considered as mitigating, they must be conveyed formally via the submission of a Mitigating Circumstances Declaration Form which must be submitted to the Student Support Office, where it is handled by the Mitigating Circumstances Officer.

Your claim for mitigating circumstances must be accompanied by independent evidence which must confirm the existence of the mitigating circumstances and state how these have impacted on your ability to study and/or complete assessments. The evidence must be in English; evidence in another language must be accompanied by a certified translation.

**Deadlines:** You should aim to notify the Student Support Office of mitigating circumstances arising during an exam within 24 hours of the exam in question. A mitigating circumstance form and supporting evidence should be submitted no later than 3 working days following the last day of your University examination. All other cases of mitigating circumstances should be submitted no later than Monday, week 9 of term 3.

Note that it is your responsibility to ensure that mitigating circumstances are communicated as described above.

When requesting medical evidence to support your application for mitigation you are advised to make clear to your doctor that the information will be shared with a number of people and to discuss with your doctor the most appropriate wording of the medical evidence. You might find it helpful to share this advice with your doctor. If your submission contains sensitive personal information and/or highly confidential evidence, you may submit your mitigating circumstances marked “strictly confidential and for the attention of the Chair of the Mitigating Circumstances Panel only.”

Note that the University expects that you will disclose your circumstances before the Mitigating Circumstances Panel meet, so that they may be taken into account in good time. You should be aware that, in the event you feel you need to appeal the outcome of an Exam Board, offering extenuating or mitigating circumstances at that point will need to be accompanied by a good reason why you withheld, or were unable to provide, the information earlier. Without wanting to invade your privacy, the University does expect that you bring such circumstances to your Department’s attention in a timely manner, despite the discomfort you might feel in so doing. Failure to disclose such circumstances at a time when you could have done so may subsequently be problematic. Your Department will do all it can to support you in difficult situations.

## **5.14 Special Examination Arrangements**

See Section [7.5](#).

## **5.15 Assessed Work**

Assessed work means credit obtained by a means other than a conventional university-supervised examination.

### 5.15.1 Deadlines

Assessed work usually comes with a deadline for completion. The department and SSLC consider these essential to ensure fairness to all the students doing the work and to the markers. Deadlines are enforced by penalising late work. Different departments have different conventions, and normally the rules of the Department teaching the module apply.

In the Department of Statistics the lecturer giving the assessment will name a date as the deadline (this will not usually be a Friday). Work should be submitted by posting it into the appropriate postbox at the Student Support Office on or before the deadline dates and time when the postbox will be emptied. The normal deadline is 11am.

#### **Pieces of work with a credit value of more than 2 CATS:**

A student who misses the deadline must personally hand their work to the Student Support Officer who will record the date and time when it was received. The lecturer will automatically enforce a penalty of 5 marks per day. "Marks" mean marks on a percentage scale. A late piece of work that would have scored 65% had it been handed in on time would be awarded 60 if it were one day late, 55 if two days late, etc. Penalties accrue only on working days (not weekends or public holidays).

#### **Pieces of work with a credit value of less than or equal to 2 CATS:**

Such work will receive a mark of 0% if submitted late. Weekly or fortnightly coursework normally fall under this category.

Normally, feedback will still be offered on work which is submitted late, provided it is submitted within 20 days of the original deadline and before the next assignment on the module is due. These restrictions may be waived if there was mitigation.

### 5.15.2 Requests for Extensions or Waiving a Late Penalty

The following information is relevant only for Statistics (STxxx) modules except for ST906, ST909 and ST958:

- Students registered in the Department of Statistics taking "ST" coded modules should follow the below guidance.
- The exception is modules intended for students on the MSc in Financial Mathematics. Deadline extensions for ST906, ST909 and ST958 are handled by the Finance Masters Programme Team ([finmasters@wbs.ac.uk](mailto:finmasters@wbs.ac.uk)).
- Students of the Department of Statistics taking modules from outside of the Department of Statistics should consult the Department delivering those mod-

ules regarding their procedures for granting extensions for assessed work. Students should also submit mitigating circumstances to the Department of Statistics Student Support Office in relation to the circumstances impacting these modules, to be considered by the Mitigating Circumstances Panel.

- Students not registered in the Department of Statistics taking “ST” coded modules should follow the below guidance. These students should also inform their home department of any mitigating circumstances and subsequent extensions or waives that are approved in relation to “ST” coded modules.
- Students must submit an extension request form for requests for extensions for STxxx coded modules to be considered. This form is available online at [warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms) or from the Department of Statistics Student Support Office.

Requests for extensions to a published deadline, or waiving a late penalty, will be granted only in cases where a student with appropriate medical or compassionate grounds makes the request before the deadline has passed unless there are specific circumstances which warrant an extension of this period.

Any such requests should be supported by documentation of the extenuating circumstances. These should be presented to the Student Support Office.

Late submission penalties will not be waived for bad time management, so plan ahead and make allowances for the possibilities of unforeseen demands on your time, such as job interviews and submission deadlines that may be close together. If you write your work on your computer make sure you regularly save your files. No excuses will be accepted due to problems you may suddenly have with your computer or printer.

The Department may require students to sit an examination in lieu of submitting a piece of assessed coursework.

In exceptional circumstances and subject to submission of appropriate documentation, the Department reserves the right to waive a piece of assessed coursework which is worth less than or equal to 3 CATS entirely. This would only be considered in cases where the specific circumstances of the student or the nature of the coursework would not allow them to submit an assignment with an approved extended deadline. In such cases the module mark would be calculated with the waived coursework mark being weighted at 0.

### **5.15.3 Self-Certification**

For assessment contributing 10% or less of the module credit, a student may submit a request for extension based on self-certification. Self-certification is permitted only for a minor illness that is short-lived (not lasting more than seven days).

Students are asked to submit a self-certification form within 3 working days of their return to University. Forms are available from the Student Support Office, or from the following link:

[warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms)

Students are not permitted to self-certify on more than two occasions during an academic year.

#### **5.15.4 Cheating (Including Plagiarism)**

*What constitutes cheating?*

In the university regulations cheating is defined as an attempt to benefit oneself or another by deceit or fraud. This includes reproducing one's own work or the work of another person or persons without proper acknowledgement. The department recognises that discussing ideas about how to tackle questions is a valuable part of the learning process. *For assessments that are not explicitly group work you are required to work independently of other students. While collaboration in the sense of a discussion of general strategies or help of a general nature are allowed, detailed discussions and comparison of numerical results or computer code are not permitted. The work you submit should be written in your own words and you should not ask to see written work, computer code or computer output belonging to another student. If you hand work in claiming that it is your individual work and it is not this will be treated as cheating.* Work produced by someone else may be included only provided it is appropriately acknowledged. Unacknowledged copying from either another student or from published sources including the internet is also treated as cheating. The purchasing of essays constitutes cheating under Regulation 11 and is subject to the same penalties.

Cheating also covers more obvious sins such as copying in tests, sharing calculators in tests and examinations, stealing work from other students, or taking your mobile phone into an examination. You are also guilty of cheating if you assist another student to do so, for example by allowing them to copy your work.

- Cheating is unacceptable and often easily spotted. Lecturers have been instructed to report any cases of suspected cheating or plagiarism which are dealt with as described below.
- We keep records! Personal Tutors may be required to write references to prospective employers testifying to honesty and integrity, if your file records that you are guilty of the offence of cheating, then this could lead to serious difficulties for you.
- If the matter goes to an Investigating Committee (and second offences will!) then you could end up thrown out of the university.



- Cheating could also constitute a breach of University Regulation 23 governing Student Disciplinary Offences.
- Cheating by students from the Statistics department in modules taught by other departments will be dealt with within that other department and reported back to the Statistics Exam Board. It works the other way round too as the Statistics Department will deal with all cases of suspected cheating in Statistics modules and report the outcome to a student's home department.
- The University understands that students may wish to have their work proof-read (particularly if English is not a student's first language). The University regulations do allow for this, provided the University's policy on proof-reading is followed (see <https://www2.warwick.ac.uk/fac/sci/statistics/courses/currentstudents/proofreading>).

The library offers an online Moodle course entitled Referencing and Avoiding Plagiarism Skills Tutorial. The department recommends that students self-enrol for this course before commencing coursework or a dissertation that involves using literature.

Where the format and style of the assessment allows, the department may use source matching software packages as part of the submission process for assessed work. We advise students not to use source matching software packages at other institutions or source matching software available online. Source matching software often automatically adds all new material to its database so this practice may lead to your work being investigated for plagiarism.

*Formal procedures followed in cases of suspected cheating in coursework:*

The University sets out the formal procedures in Regulation 11 of the University Calendar (see [warwick.ac.uk/services/gov/calendar/section2/regulations/cheating](http://warwick.ac.uk/services/gov/calendar/section2/regulations/cheating)). These are briefly described in the following paragraphs.

- Instances of suspected cheating will be referred to a departmental Academic Conduct Panel (ACP), which will consist of at least two academic members of staff. The ACP assembled for a given case will not include the leader of the module the work was produced for.
- If the ACP considers there is evidence of poor academic practice, or that cheating has occurred, the Panel will ask the student to make a statement.
- Should the ACP conclude there is evidence of cheating, they will refer the case to the Head of Department, who will give the student the chance to make representations on their own behalf, before deciding what penalty if any shall be applied. In the absence of mitigating circumstances, this shall normally be a mark of zero in the piece of work concerned.

- The student may accept the penalty determined by the Head of Department as a final decision. A report of the circumstances of the case and the penalty imposed will be reported in the student's file and to the relevant Examination Board.
- The student has the right to appeal to an Investigating Committee of the Senate (ICS) against the decision – more details can be found in Regulation 11 of the University Calendar (updated in 2017).
- The Head of Department may alternatively decide the suspected offence is sufficiently serious as to require referring to an ICS – this includes instances of suspected cheating by students who have previously been found to have cheated.

### 5.15.5 Marks and Marking

The marks given for assessed work are always provisional and may be changed by the Board of Examiners. Students should retain all of their assessed work because it may have to be resubmitted to the department just before the Board of Examiners meeting.

Students may choose to have their major projects and essays marked anonymously, just quoting their University number. However, anonymous marking leads to difficulties in quickly returning marked work. Such work cannot be returned via students' pigeonholes and there are further problems when numbers are incorrectly quoted. Consequently, following SSLC and Science Sub-Faculty discussions, students must quote their names on all individual Statistics, Mathematics and other Science Faculty assessments which account for less than 30% of that particular module's credit.

## 5.16 Use of Calculators in Examinations

Concerning the use of calculators in examinations the Department of Statistics follows the University rule which states that *except for the display of error or function messages, calculators with non-numeric displays are not allowed*. In other words prohibited calculators are those which can accept alphabetical data. Note that this includes most graphical calculators of the type acceptable in GCSE and A-level examinations. It is your responsibility to ensure that your calculator fulfils the University's criterion and that your calculator is not of the prohibited type. Otherwise you may find yourself denied the use of your calculator and be involved in disciplinary proceedings.

Suggested suitable calculators for incoming students which are in line with recommendations from the Computer Science Department are Casio fx82, fx83 or fx85. All of these are available from SU and from well known retailers. They are

also reasonably priced.

Please remember:

- Calculators must not be passed from candidate to candidate during the examination;
- Responsibility for the calculator's proper functioning is entirely that of the student;
- Students taking examinations other than those of the Department of Statistics must ascertain the regulations governing the use of calculators from the Department concerned.

In particular, calculators are not allowed in ST115 or examinations organised by the Mathematics Department (these are all MAxxx module exams). In general, the same rule applies to tests for credit in MAxxx modules, unless students are otherwise informed by the lecturer running the test.

## 5.17 Student Prizes

Prizes will be awarded for outstanding/excellent performances in each year of our degree courses. For continuing students, these will be presented in the induction session at the start of the next academic year. For graduating students, these will be presented in a reception in the Department on the day of graduation.

# 6 Change of Course

## 6.1 Transferring to Another Degree

It is possible, with the permission of the relevant department(s), to transfer from the first year of Data Science to closely related degree schemes. Transferring to one of the *Mathematics and Statistics* degrees is likely to be the most straightforward of these possibilities. In every case it is necessary to fill in and sign a course transfer form, which is available from the Student Support Office or online: [warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms). Course transfers are only permitted during term 1, the first week of term 2 and at the end of the academic year when examination results are known.

Overseas students need to check visa regulations for course transfers. Depending on the nature of the degree change, different processes need to be followed and deadlines apply. In some cases (such as changing from a four-year course to a three-year course) it may be necessary to return to the home country and apply for a new visa from there. For more details and updates see:

[warwick.ac.uk/study/international/immigration/tier4/changes/coursechange](http://warwick.ac.uk/study/international/immigration/tier4/changes/coursechange)

and contact the immigrations service for remaining open questions:

[warwick.ac.uk/study/international/immigration](http://warwick.ac.uk/study/international/immigration)

## 6.2 Intercalated Year

Detailed information about intercalated years can be found in the Intercalated Year Handbook which is available online at [warwick.ac.uk/fac/sci/statistics/courses/-handbooks](http://warwick.ac.uk/fac/sci/statistics/courses/-handbooks)

Statistics students may apply to take a degree course entitled Data Science (with Intercalated Year), G303, which entails four years of study rather than the usual three. Registration for this degree should take place as early as possible in the previous year. For Data Science students the intercalated year takes place at the end of the second year. On their return, students join the final year of study. The intercalated year entails either working in industry, or studying at a university abroad and must be approved by your Personal Tutor, the Intercalated Year Coordinator and the Director of Undergraduate Studies. Approval is not guaranteed and largely depends on current academic achievement (no less than 2:1). An Intercalated Year Approval form will have to be completed. The forms are available online at [warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms). During the intercalated year you must meet the relevant monitoring points ([warwick.ac.uk/fac/sci/statistics/courses/currentstudents/pointsofengagement](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/pointsofengagement)) which require you to contact the Intercalated Year Coordinator on a regular basis with a brief summary of your experience, and also inform the Intercalated Year Coordinator as soon as possible if any difficulties arise. Please also be aware that, as this intercalated year forms part of your formal degree programme, half 'home' student fees are payable. For further information about this contact Student Finance in University House.

Undergraduates who have in the past succeeded in finding a job in industry have found this a very helpful experience. The Department does not currently provide a formal role in helping students find an industrial placement, and students who are interested in this are recommended to seek help from the Careers Office. The main criterion is that the placement should provide learning experiences which are related to the degree course. After your return from the intercalated year, you will be required to file a report with the Department during the first week of the first term on this learning experience.

ERASMUS, a European Union educational scheme, provides an opportunity for Warwick students to spend a year at a partner university in another European country. If you are interested in the ERASMUS scheme, you will get advice and help from the International Office in University House, see [warwick.ac.uk/study/-studyabroad](http://warwick.ac.uk/study/-studyabroad).

## 7 Welfare

The University has a strong and well-established network of welfare and support services provided for students and, in many cases, staff. The services set out below, which are provided across the campus, are diverse and intended to meet the many and varied needs of the University community. Please refer to the following web-page for further details:

[warwick.ac.uk/services/supportservices](http://warwick.ac.uk/services/supportservices)

### 7.1 Illness

Illness can be a mitigating circumstance and so you should follow the advice and procedures laid out in Section 5.13 and Section 5.15. Ensure you let your personal tutor and lecturers expecting assessments know.

If your illness affects your attendance to the extent that you miss a monitoring point (please refer to [warwick.ac.uk/stats/courses/currentstudents/pointsofengagement](http://warwick.ac.uk/stats/courses/currentstudents/pointsofengagement) for the list of current engagement points) please contact the Student Support Office in the first instance so that we can correctly record the reasons for absence.

### 7.2 Dean of Students and Wellbeing Services

The Dean of Student's Office ([warwick.ac.uk/services/tutors](http://warwick.ac.uk/services/tutors)) and Wellbeing Support Services ([warwick.ac.uk/services/supportservices](http://warwick.ac.uk/services/supportservices)) provide help and advice to students from all departments. The University has a Counselling Service ([warwick.ac.uk/services/counselling](http://warwick.ac.uk/services/counselling)) which provides individual counselling, email counselling and group sessions. These services are entirely confidential and nothing is passed to any third party (e.g. your department) without your permission. Counselling Services also offer a range of specialist workshops on topics ranging from study skills to stress reduction. A list of the workshops offered by the Counselling Service can be found at [warwick.ac.uk/services/tutors/counselling/workshops](http://warwick.ac.uk/services/tutors/counselling/workshops).

### 7.3 Equal Opportunities

The department subscribes to the University's Equal Opportunities Statement:

*The promotion of Equality, Diversity and Inclusion concerns all of us and is the responsibility of all members of our community. It is expected that we will all contribute to ensuring that the University of Warwick continues to be a safe, welcoming and productive environment, where there is equality of opportunity, fostered in an environment of mutual respect and dignity.*

*The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognising our individual differences. We understand that simply having diversity in our work force and student body is not enough; we must create an inclusive environment where all people can contribute and reach their full potential.*

*Inclusion is engaging the uniqueness and talents, beliefs, backgrounds, capabilities and ways of working of all individuals, joined in a common endeavour, to create a culture of belonging, in which people feel valued and respected.*

Further information regarding Equality, Diversity and Inclusion can be found at the following links:

[warwick.ac.uk/equalops](http://warwick.ac.uk/equalops)

including the Diversity and Inclusion Policy

[warwick.ac.uk/equalops/equal\\_opportunities\\_statement/diversityandinclusion](http://warwick.ac.uk/equalops/equal_opportunities_statement/diversityandinclusion)

Also note that the department has a Disability Representative who liaises with Disability Services and who welcomes feedback from students with disabilities.

## **7.4 Sexual and Racial Harassment**

Sexual and racial harassment are totally unacceptable: we will support those subjected to it and, when appropriate, will take disciplinary action against offenders. Within the department help and support will be provided by all members of staff. Outside the department you may seek help from the Faculty Senior Tutor, the Student Counsellors and the Student Union Welfare Staff.

The University and the Students' Union have prepared Guidelines on Sexual, Racial and Personal Harassment:

[warwick.ac.uk/services/equalops/dignityatwarwick](http://warwick.ac.uk/services/equalops/dignityatwarwick)

The guidelines include advice on identifying and addressing harassment, formal procedures which can be followed and details of sources of support. The guidelines are also available from the office of the Director of Student and Ancillary Services.

If you feel able to make it clear to the person causing you offence that their behaviour is unacceptable that may be enough to stop it. But if you do not feel able to tackle the person, you should feel free to seek assistance from those listed above.

## 7.5 Reasonable Adjustment and Special Examination Arrangements

If you have an existing or ongoing disability, illness or medical condition, which requires special arrangements for your final exams, class tests and/or any other assessed work please discuss this with your Personal Tutor and the University Disability Services ([warwick.ac.uk/services/disability](http://warwick.ac.uk/services/disability)) as soon as possible. Students should register with Disability Services and meet with an advisor to discuss what special arrangements may be helpful to enable you to engage with your course. Adjustments are considered on an individual basis and are considered in the context of the impact of the disability or learning difference, University policies and the Equality Act 2010. Once agreed, any recommended adjustment will be confidentially communicated to your Department by Disability Services.

Regarding class tests and other assessed work, special arrangements need to be discussed and agreed with the relevant department for each module for which you require special arrangements. In addition to the contacts above, please notify the Student Support Office (both at the Department of Statistics and the Department which offers the corresponding module). It is not required for you to notify module leaders if you do not feel comfortable doing so, but we recommend notifying them, as it will give more time for them to consider how best to accommodate your specific requirements.

Please let the Student Support Office know about special arrangements at least 10 working days before the class test takes place or the assessment is due. If possible let us know earlier to allow us to best support you. Insufficient notice to the corresponding departments may mean that it is not possible to make appropriate arrangements (subject to eligibility) in time for the class test or assessment.

Regarding final exams, if appropriate, the Disability Services will recommend special examination arrangements to the Department of Statistics and the Examinations Office.

More information (including important deadlines) can be found here: [warwick.ac.uk/services/academicoffice/examinations/students/special\\_examination\\_arrangements](http://warwick.ac.uk/services/academicoffice/examinations/students/special_examination_arrangements)

Recommendations for exam arrangements on disability grounds are evidence based and informed by supporting documentation. Once accepted, these arrangements will continue for the duration of your degree course.

More information (as well as types of special examination arrangements) can be found on the following web-pages:

[warwick.ac.uk/services/disability/howwecanhelp/examinations](http://warwick.ac.uk/services/disability/howwecanhelp/examinations)

[warwick.ac.uk/services/disability/howwecanhelp/adjustments](http://warwick.ac.uk/services/disability/howwecanhelp/adjustments)

Cases of temporary illness or injury will be granted a temporary arrangement at the time, or will be taken into account by the examination board after your examination has taken place, these will not carry over to the following year. If you have a temporary and/or unexpected illness, injury or condition that may result in you needing additional support for your study or examinations (for example a broken limb requiring a scribe for examinations or lectures) you should submit medical evidence of your condition to the Student Support Office who will liaise with the Examinations Office with regard to agreeing any additional temporary support requirements or reasonable adjustments ahead of your examination taking place.

If you are unable to provide such evidence for support arrangements to be put in place in good time, consideration for these types of matters should be applied for through the mitigating circumstances procedure. The mitigating circumstances form can be found online: [warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms/mitigating\\_circumstances\\_form\\_statistics.pdf](http://warwick.ac.uk/fac/sci/statistics/courses/currentstudents/forms/mitigating_circumstances_form_statistics.pdf).

If you have any questions relating to this please contact the Student Support Office or refer to the following weblink: [warwick.ac.uk/services/aro/dar/quality/categories/examinations/policies/u\\_mitigatingcircumstances](http://warwick.ac.uk/services/aro/dar/quality/categories/examinations/policies/u_mitigatingcircumstances)

For referral to the University's Disability Coordinator, please speak to your Personal Tutor, the departmental Disability Representative, the Student Support Office, or visit [warwick.ac.uk/services/disability](http://warwick.ac.uk/services/disability).

### **7.5.1 Religious Observance**

If for reasons of religious observance you would prefer not to take examinations or class tests on a particular day(s), please notify the Student Support Office, which will supply you with a Religious Observance Form (Examinations) for you to complete, which will inform the Academic Office (for Examinations) of your preferences. Please note that there are strict deadlines by which religious observance forms must be submitted (usually by the end of term 1). While the University will make every reasonable effort to avoid the times/dates in your request, owing to the logistical constraints and difficulties involved in scheduling examinations, it may prove impossible to avoid those times/dates for your examinations. In such an event you may wish to ask your academic department to see if they can make any alternative arrangements for you, or ask the relevant University Chaplain if they could help in terms of chaperoning arrangements. Therefore please note that submission of the religious observance request form does NOT mean that your examinations will definitely not be set on the dates/times you would wish to avoid.

For more information please see: [warwick.ac.uk/services/academicoffice/](http://warwick.ac.uk/services/academicoffice/)



[examinations/students/special\\_examination\\_arrangements](#).

## 7.6 Health and Safety

The Departmental Safety Officer is the Departmental Administrator, Mrs Paula Matthews, and any matters relating to safety within the department should be referred to her by email: [paula.matthews@warwick.ac.uk](mailto:paula.matthews@warwick.ac.uk).

## 7.7 Complaints Procedures

The University has a clear three-stage Student Complaints Resolution Pathway for informal and formal concerns or complaints. Further information about the Pathway, including the rules and required timescales, are set out in the formal procedure:

[warwick.ac.uk/services/feedbackcomplaints/students/complaints/procedure](http://warwick.ac.uk/services/feedbackcomplaints/students/complaints/procedure)

Stage 1 of the Student Complaints Resolution Pathway is through front-line/local resolution. Many problems can be dealt with on an informal basis, and in the first instance you can contact your personal tutor, or a member of the SSLC. You can also get advice from the Faculty Senior tutor and the Students Union.

If you then wish to pursue the matter more formally, Stage 2 of the Student Complaints Resolution Pathway is a formal departmental investigation which can be initiated via the website above.

Stage 3 of the Student Complaints Resolution Pathway is to initiate a formal Institutional Review.

Early resolution of the complaint should be sought and it is expected that the vast majority of complaints will be resolved through a local/front-line response. Should any complaint not be resolved through this internal three stage process, students are able to request that their complaint be independently reviewed by the Office of the Independent Adjudicator (OIA).

Appeals against decisions of the examination board are subject to special procedures. Further details are available at Section [5.10](#).

## 7.8 Additional Costs

All Academic Departments at the University of Warwick are required to declare any additional/hidden course costs that may be incurred by students enrolled on our degree programmes. Other than purchasing a suitable calculator (see Section [5.16](#)) the only other costs that can be incurred are:

- The non-compulsory purchase of Core Technical (CT) notes from the Student Support Office, for any student wanting to pursue modules associated with CT

actuarial exams, at a cost of £15 per book.

- The purchase of additional printer credits. A £5 credit is applied to each student at the start of every academic year, enough for 100 single-sided A4 Black & White pages to be printed. Additional credits can be purchased on the following webpage: [printercredits.warwick.ac.uk](http://printercredits.warwick.ac.uk).

## 8 Careers

### 8.1 What Do Statistics Graduates Do?

Graduates from the Department of Statistics enter a diverse range of careers. Many opt to work within the Financial Services sector with the Actuarial, Accounting and Investment Banking opportunities being particular favourites. These roles often involve the study for professional qualifications such as ACA, CIMA, CFA and the actuarial examinations. Other frequent career choices include e-Commerce, Business and Industrial Consultancy, Operational Research, Marketing, Scientific Research, and Government. Statistics graduates develop a strong range of transferable skills including excellent numerical, problem-solving and analytical abilities. These along with your ability to communicate complex ideas effectively are highly sought after by employers.

A number of students decide to continue in academia, studying for either a Statistics related Masters or PhD. Alternative study routes have included the study of Management Science & Operational Research or the PGCE teaching qualification.

### 8.2 Careers Guidance

Making good career decisions involves thinking about your interests and values and also spending time researching possible occupations. If you would like to discuss your ideas or feel you need support with working through your options and developing ideas then please book an appointment with a Careers Consultant at [warwick.ac.uk/services/careers](http://warwick.ac.uk/services/careers). To contact Student Careers with general questions about support, events etc., please email [careers@warwick.ac.uk](mailto:careers@warwick.ac.uk).

### 8.3 Careers Information Resources

The Student Careers and Skills website gives you access to a range of information on career planning, job seeking, interview skills, and much more. Don't forget to check out the vacancy database which provides access to hundreds of opportunities for work experience and internships, as well as graduate vacancies: [warwick.ac.uk/services/careers/findingwork](http://warwick.ac.uk/services/careers/findingwork)

## 8.4 Careers Events

You can keep up to date with the latest careers news and events by joining the Warwick Statistics Careers Facebook Page:

<https://www.facebook.com/groups/548688985255792/>

An extensive programme of events including skills development workshops, presentations on particular sectors and mock interviews are available throughout the year.

Don't miss the valuable opportunity to meet employers face to face – remember most of these events occur in weeks 1-7 of the autumn term as do many deadlines for summer programmes and graduate roles. Explore your options, compare organisations and find out what skills employers are looking for by visiting the Careers Fairs, employer presentations and alumni evenings. You will need to book online for most events as places are limited – go to [warwick.ac.uk/services/careers](http://warwick.ac.uk/services/careers).

## 8.5 Making the Most of Your Time at University

Alongside the achievement of a good degree, employers are looking for students who have maximised the use of their time at university and got involved in a wide range of extracurricular activities. Many students help in the running of societies which helps to build personal skills such as communication, leadership, problem solving and team working.

Work experience in general can greatly increase your chances of receiving a graduate job offer. To explore opportunities for gaining experience both on and off campus, visit our Experience Portal: [warwick.ac.uk/services/careers/workexperience](http://warwick.ac.uk/services/careers/workexperience).

Both employers and postgraduate course providers will expect you to be knowledgeable and assertive about the intellectual and personal skills which you have gained during your degree course. They are concerned about what you can do, in addition to what you have studied, and will require you to substantiate the claims you make when making applications. They will look at your past experiences, choices and behaviour to find evidence of these skills. If you want to access a range of skills workshops around both academic and professional skills, check out [warwick.ac.uk/services/skills](http://warwick.ac.uk/services/skills).

## 8.6 International Students

If you are hoping to find employment in the UK after graduation, and English is not your first language, think about ways in which you can improve your conversational English. To be successful at an interview you will need very good verbal

communication skills, and sometimes our international students – despite having excellent academic results – will not be able to progress beyond this point because their spoken English isn't good enough.

The Centre for Applied Linguistics (CAL) runs classes for our non-native speaking students: see 'Learning English' at [warwick.ac.uk/fac/soc/al](http://warwick.ac.uk/fac/soc/al). You can apply what you have learnt by joining clubs and societies and regularly mixing with students who are native English speakers.

## 8.7 Letters of Reference

When you apply for employment or further training you will probably be asked for two academic referees. One of these will normally be your Personal Tutor, the other should be someone familiar with your work such as a lecturer who has marked some of your coursework or supervised a project. Please note:

- Obtain early agreement from your referees to write references for you, and keep them informed of the applications you make.
- Request references at least 2 weeks before any related deadline, and provide the referees with up-to-date supporting material (CV, personal statement, etc.)
- If you have difficulty finding a suitable person to act as a second referee, then the department has a process by which an academic member of staff will write a reference for you. If you wish to use this service you should contact the Student Support Office as soon as possible, giving details of your applications and providing your CV, personal statement etc. Note however that references written by this system are likely to be limited to factual information, such as your academic performance to date.
- Please allow for more time during the months of summer vacation.

## 8.8 Careers in Teaching: Warwick Volunteers

*Warwick in Schools:* If you are intending to take a PGCE (Post Graduate Certificate in Education) after your degree, or have secondary teaching as one of your career options, then Warwick in Schools could be for you!

As one of the leading providers of Initial Teacher Training, the University's Institute of Education is once again offering undergraduates the opportunity to try a 'taster' of teaching. If you join the Warwick in Schools scheme (WinS) you will receive bursary funded training which will prepare you for the expectations of a professional environment. You will look at some of the issues concerned with effective teaching and learning, and you will be given help and support to prepare for your school visits. If you then decide to do your PGCE at Warwick, you would

achieve a ‘training credit’ which would mean that you could complete the course earlier in the year than normal.

*Warwick Volunteers: Student Tutoring:* Volunteering as a Student Tutor is a great way to decide if teaching is the career for you. The Student Tutoring project places volunteers in a classroom in Primary, Secondary and SEN schools across Coventry, Leamington, Kenilworth and Warwick. Volunteers will take on a teaching assistant role and work alongside class teachers to provide support to pupils. Placements are arranged to suit each individual and volunteers are able to choose the type of school, location and subject of their choice.

Sign-up for the project opens at the end of September, and can be accessed through the following web-link: [warwick.ac.uk/about/community/volunteers/volunteering/-tutoring](http://warwick.ac.uk/about/community/volunteers/volunteering/-tutoring)

## 8.9 Final Thoughts

Make sure you enjoy your time at Warwick and take advantage of the vast array of opportunities on offer. Visit the Centre for Student Careers & Skills sooner rather than later. For details, see [warwick.ac.uk/careers](http://warwick.ac.uk/careers). The Centre for Student Careers & Skills looks forward to welcoming you.

# 9 People and Dates

## 9.1 Dates of Terms

[warwick.ac.uk/study/termdates](http://warwick.ac.uk/study/termdates)

### *Academic year 2018-19*

Term 1 (weeks 1-10)	Monday 1st October 2018 - Saturday 8th December 2018. Lectures commence Monday 1st October.
Term 2 (weeks 11-20)	Monday 7th January 2019 - Saturday 16th March 2019. Lectures commence Monday 7th January.
Term 3 (weeks 21-30)	Wednesday 24th April 2019 - Saturday 29th June 2019. Lectures commence Wednesday 24th April.

### *Academic year 2019-20*

Term 1 (weeks 1-10)	Monday 30th September 2019 - Saturday 7th December 2019
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## 9.2 Contact Details

The normal point of contact for general information is the Student Support Office. The Office is open to student enquiries Monday to Friday (excluding holidays) from 9:30 to 12:00 noon and from 14:00 to 16:00. If you need to contact the Department urgently, in the first instance you should contact the Student Support Office in person, by email, or by phone.

<b>Postal Address</b>	Student Support Office, Department of Statistics, University of Warwick, Coventry, CV4 7AL
<b>Email Address</b>	<a href="mailto:stats.ug.support@warwick.ac.uk">stats.ug.support@warwick.ac.uk</a>
<b>Telephone</b>	+44 (0)2476 523066 (Internal: 23066)

In the event of an incident requiring the emergency services (ambulance, police or fire and rescue), telephone 22222 (Internal) or 024 76 52222 (External).

## 9.3 Officers 2018-19

BSc Data Science Course Directors	Dr Adam Johansen (Statistics) & Dr Theo Damoulas (Computer Science)
U/G Senior Tutor	Dr Dario Spanò
SSLC Academic Convenor	Dr Rachel Hilliam
Director of Student Experience and Progression	Dr Rachel Hilliam
Intercalated Year Coordinator	Dr Rachel Hilliam
Head of Student Engagement and Teaching Quality Assurance	Dr Lynne Bayley
Disability Representative	Dr Ric Crossman
Undergraduate Publicity	Dr Julia Brettschneider
Head of Department	Professor Barbel Finkenstadt-Rand
Deputy Head of Department ( <i>Teaching and Learning</i> )	Professor David Hobson
Secretary of the Board of Examiners	Dr Larbi Alili
First Year Examination Secretary	Dr Nayia Constantinou
Second Year Examination Secretary	Dr Ric Crossman
Undergraduate Admissions Officers	Dr Anastasia Papavasiliou & Dr Julia Brettschneider
Academic Programmes Manager	Mr David Kinmond

Undergraduate Support and Timetable  
Officer

Undergraduate Support and Mitigating  
Circumstances Officer

Miss Kay Jones

Mrs Jessica  
Shuttleworth

[stats.ug.support@warwick.ac.uk](mailto:stats.ug.support@warwick.ac.uk)

+44 (0) 2476 523066

(Internal: 23066)