DEPARTMENT OF STATISTICAL SCIENCE
UNDERGRADUATE STUDENT HANDBOOK

The Department of Statistical Science Undergraduate Student Handbook has been written for undergraduate students admitted by the Department of Statistical Science to study for one of the following degrees:

**BSc Data Science** (UCAS code G303)
**BSc Statistics** (UCAS code G300)
**BSc Statistics, Economics and Finance** (known as SEF, UCAS code GLN0)
**BSc Statistics, Economics and a Language** (known as SEL, UCAS code GLR0)
**BSc Statistics and Management for Business** (known as SAMB, UCAS code GN32)
**BSc (Econ) Economics and Statistics** (known as Econ/Stats, UCAS code LG13)
**MSci Statistical Science (International Programme)** (UCAS code G305)

The contents also provide information for undergraduate students studying Statistical Science as part of the following degrees:

**BSc Mathematics and Statistical Science** (known as MASS, UCAS code GG13)
**MSci Mathematics and Statistical Science** (known as MASS, UCAS code GGC3)

Students on the Econ/Stats, MASS and SAMB degree programmes will also need to refer to the corresponding information published respectively by the Departments of Economics and Mathematics, and the School of Management.

Some of the contents are also relevant to students admitted by the Department of Statistical Science to study for academic credit as part of an undergraduate affiliate programme, either for the whole year, or for the second and third terms only.

The Department of Statistical Science Undergraduate Student Handbook is intended to provide particular information for students registered for the degrees listed above. General information about studying at UCL is given in the UCL Academic Manual and UCL Students sections of the UCL website. It is important that you are aware of these resources.

The information given in this handbook is as far as possible accurate at the date of publication, but the Department reserves the right to make amendments before the commencement of, or during, the academic session to which it refers. Information concerning College regulations and procedures is given for guidance only and is not intended as a substitute for that contained in the UCL Academic Manual and on the main UCL website (available from the web addresses linked above).

Department of Statistical Science, University College London, September 2021.
Coursework ................................................................................................................................. 20
Self study .................................................................................................................................. 20
Total workload .............................................................................................................................. 20
DEGREE PROGRAMME SPECIFICATIONS ............................................................................... 21
Modules ...................................................................................................................................... 21
Module codes ............................................................................................................................... 21
Levels of modules ......................................................................................................................... 21
UCL module catalogue ................................................................................................................ 21
Language modules ........................................................................................................................ 21
Selecting modules .......................................................................................................................... 22
Module selection and verification deadlines .............................................................................. 22
New Process for Choosing Modules for 2022/23 (continuing students) .................................... 23
BSc Data Science ......................................................................................................................... 23
Aims ........................................................................................................................................... 23
Objectives .................................................................................................................................. 23
Curriculum ..................................................................................................................................... 24
BSc Statistics ................................................................................................................................. 24
Aims ........................................................................................................................................... 24
Objectives .................................................................................................................................. 24
Curriculum ..................................................................................................................................... 24
BSc Statistics, Economics and Finance (SEF) ........................................................................... 27
Aims ........................................................................................................................................... 27
Objectives .................................................................................................................................. 27
Curriculum ..................................................................................................................................... 28
BSc Statistics, Economics and a Language (SEL) .................................................................... 30
Aims ........................................................................................................................................... 30
Objectives .................................................................................................................................. 30
Curriculum ..................................................................................................................................... 31
BSc Statistics and Management for Business (SAMB) .............................................................. 33
Aims ........................................................................................................................................... 33
Objectives .................................................................................................................................. 33
Curriculum ..................................................................................................................................... 34
BSc (Econ) Economics and Statistics (Econ/Stats) .................................................................. 36
Aims ........................................................................................................................................... 36
Objectives .................................................................................................................................. 36
Curriculum ..................................................................................................................................... 37
MSc Statistical Science (International Programme) .................................................................... 39
Aims ........................................................................................................................................... 39
Objectives .................................................................................................................................. 39
Curriculum ..................................................................................................................................... 40
BSc/MSc Mathematics and Statistical Science .......................................................................... 41
EXTENUATING CIRCUMSTANCES AND REASONABLE ADJUSTMENTS ................................ 41
Students with disabilities and long-term conditions ................................................................. 41
Pregnancy and maternity, paternity, parental and adoption leave ........................................... 41
Religious observance.................................................................................................................... 42
Examination adjustments ............................................................................................................ 42
Illness and other extenuating circumstances .............................................................................. 42
How to apply for extenuating circumstances ........................................................................... 43
Longer term conditions ............................................................................................................... 43
Support to study policy and fitness to study procedure .............................................................. 43
ASSESSMENT ............................................................................................................................. 43
Components of compulsory assessment ................................................................................... 43
In-course assessment ................................................................................................................... 43
Final examinations ....................................................................................................................... 44
Overall module mark .................................................................................................................. 44
UCL feedback turnaround policy ........................................................................................................ 45
Academic integrity ................................................................................................................................. 45
Plagiarism and collusion ......................................................................................................................... 46
What isn't acceptable? ............................................................................................................................ 46
What is acceptable? ............................................................................................................................... 46
Some examples ........................................................................................................................................ 47
How to avoid plagiarism and collusion ............................................................................................... 47
Examination marks .................................................................................................................................. 48
First and second marking ......................................................................................................................... 48
Moderation ................................................................................................................................................ 48
External examining at UCL ...................................................................................................................... 48
Boards of examiners ............................................................................................................................... 49
Appeals concerning examination results .............................................................................................. 49
Information about the consequences of failure ...................................................................................... 49
Condonement .......................................................................................................................................... 49
Reassessment .......................................................................................................................................... 50
Deferred assessment .............................................................................................................................. 50
PROGRESSION, AWARD AND CLASSIFICATION ............................................................................ 50
Progression and award requirements .................................................................................................... 51
MSci degree ........................................................................................................................................... 51
Classification scheme ............................................................................................................................. 51
Prizes and medals ................................................................................................................................... 52
Departmental ........................................................................................................................................... 52
Faculty ..................................................................................................................................................... 53
Other ....................................................................................................................................................... 53
CHANGES TO REGISTRATION STATUS ............................................................................................ 53
Changing programme ............................................................................................................................. 53
Tier 4 students and changing programmes ........................................................................................... 53
Interruption of studies ............................................................................................................................. 54
Withdrawing from a programme ............................................................................................................. 54
Informing the Student Loans Company of changes to student status ................................................ 54
STUDENT SUPPORT AND WELLBEING .......................................................................................... 54
Central wellbeing and support services .............................................................................................. 54
The Student Enquiries Centre ................................................................................................................. 54
Disability, Mental Health and Wellbeing Team ...................................................................................... 55
Student Psychological and Counselling Services ................................................................................... 55
International student support ................................................................................................................ 55
Study abroad support ............................................................................................................................ 56
Accommodation ...................................................................................................................................... 56
Financial support .................................................................................................................................... 56
Transition mentors ................................................................................................................................. 56
Student of concern ................................................................................................................................. 57
Registering with a doctor and out-of-hours support services ............................................................... 57
Registering with a doctor ......................................................................................................................... 57
Out-of-hours support and information helpline .................................................................................... 57
Crisis support - immediate and urgent help ......................................................................................... 57
Equality and inclusion ............................................................................................................................ 58
Inclusion Leads ....................................................................................................................................... 58
Bullying, harassment, sexual misconduct and/or domestic abuse ....................................................... 58
STUDENT REPRESENTATION .......................................................................................................... 59
Students' Union UCL ............................................................................................................................... 59
Student clubs and societies ................................................................................................................... 60
Departmental student society ................................................................................................................. 60
Academic Representatives ..................................................................................................................... 60
Staff-Student Consultative Committee ................................................................................................. 61
Departmental Teaching Committee ................................................................. 61
Students’ Union Advice Service ................................................................. 61
Student complaints ....................................................................................... 61
   Informal resolution .................................................................................... 61
   Formal complaints ..................................................................................... 62
STUDENT FEEDBACK ..................................................................................... 62
   Student surveys ........................................................................................ 62
   Module evaluation questionnaires ......................................................... 62
   The Annual Student Experience Review (ASER) .................................... 63
   UCL ChangeMakers ................................................................................ 63
EMPLOYABILITY AND CAREERS ................................................................. 64
   Careers information ................................................................................. 64
   UCL Careers ............................................................................................. 64
   Professional accreditation ....................................................................... 64
      Royal Statistical Society (RSS) ............................................................ 64
      Management modules ......................................................................... 64
   Industrial placement schemes ............................................................... 65
   Entrepreneurship at UCL ......................................................................... 65
HEALTH, SAFETY AND SECURITY ............................................................. 66
   Health, safety and security at UCL ........................................................ 66
AFTER STUDY ............................................................................................... 66
   Degree certificates and transcripts ....................................................... 66
   Higher Education Achievement Report (HEAR) .................................... 67
   Graduation ceremonies ......................................................................... 67
   UCL alumni community ...................................................................... 67
PROVOST’S WELCOME

Dear students

To those of you who are returning, welcome back. To those of you who are new, congratulations for choosing UCL as your university.

Whatever your degree programme, your UCL education will take you deep into your chosen field and give you its broader context in our rich multidisciplinary academic culture. It will help you develop your skills and your networks and prepare you for your future.

We want you to learn how to think, not what to think, through UCL’s research-based approach to education. Our students are our partners and contributors, working alongside world-leading academic staff to pursue excellence, break boundaries and make an impact on global challenges.

As we embark on the next academic year, UCL will make sure that the restrictions and negative effects of the Covid-19 pandemic in 2021 do not prevent your full engagement with teaching and learning and student life. We will make sure that as a student you connect well with people (your peers, teachers, researchers, and other UCL communities), with knowledge and research, and with the wider world. We will deliver this unique Connected Learning approach through enhanced online resources and remote teaching, as well as through face-to-face teaching on campus.

I warmly encourage you to shape your journey at UCL. Take our university-wide surveys and make your voice heard. Work in partnership with academics to make your programme of study even better.

UCL is a community of great minds. You are a valuable member of that community. I hope you will take every opportunity to shape your time with us, so that your experience is the best possible.

Dr Michael Spence
UCL President and Provost

You can find the latest UCL information on the Coronavirus at: http://www.ucl.ac.uk/coronavirus.
COVID-19: POSSIBLE CHANGES TO INFORMATION

UCL will do all it can to support you during the on-going Covid-19 pandemic and please be assured that your safety is our top priority. However, we would ask you to please be aware that the information and advice provided in this handbook may be subject to change. In order for us to be as agile and responsive to your needs as possible, the most current information on services affected by Covid-19 is available on the UCL website and can be accessed from the main Students’ webpages. This also includes Frequently Asked Questions (FAQs) which may help you with any queries that you may have.

Advice and guidance on the support available to you can also be found on the Student Support and Wellbeing webpages.

When the campus is open, you can also access support from the Student Enquiries Centre, though please note that this may need to physically close depending on circumstances. However, you can also log a query with UCL’s new online enquiries system and self-help centre, askUCL, which is always open.

Please remember that the Department can also help with many queries, particularly questions about your programme or modules. Refer to the next section for details of where you should enquire.

DEPARTMENT OF STATISTICAL SCIENCE

The Department of Statistical Science is a constituent department of the Faculty of Mathematical and Physical Sciences (abbreviated to MAPS). Some information about the Department is provided on the Departmental website. The Department of Statistical Science is located on the first and second floors of 1-19 Torrington Place. The offices of the academic staff are all in this location. The Teaching & Learning Office can be found in room 123 on the first floor.

Staff

Academic staff

Prof Gianluca Baio (Head of Department)

Dr Gareth Ambler
Dr Julie Barber
Dr Tom Bartlett
Dr Alexandros Beskos
Dr François-Xavier Briol
Prof Richard Chandler
Dr Alessandra Cipriani
Prof Codina Cotar
Prof Petros Dellaportas
Prof Tom Fearn
Prof Jim Griffin

Prof Serge Guillias
Dr Brice Lehmann
Dr Sam Livingstone
Dr Ioanna Manolopoulou
Prof Giampiero Marra
Prof Rumana Omar
Dr Menelaos Pavlou
Dr Yvo Pokern
Dr Kayvan Sadeghi

Prof Ricardo Silva
Dr Javier Rubio Alvarez
Dr Emma Simpson
Dr Terry Soo
Dr Katerina Stavrianaki
Dr Ardo van den Hout
Dr Alexander Watson
Prof Jinghao Xue

Teaching staff

Dr Niloufar Abourashchi
Dr Alex Donov
Dr Simon Harden
Dr Julian Herbert

Dr Tom Honnor
Dr Takoua Jendoubi
Dr Elinor Jones
Dr Chak Hei Lo

Dr Matina Rassias
Dr Cemil Selcuk
Professional services staff

Stephanie Dickinson  Moe John  Jonny Picken
Dr Russell Evans  Charlotte Lee  Agnes Somogyi
Audrey Gbato  Karen Leport  Shanna Tran
Sharmin Haque  Marina Lewis  Chakkapas Visavakul

Staff with particular responsibility for undergraduate students

Departmental Tutor

The Departmental Tutor is responsible for the day-to-day running of the six Statistical Science BSc degree programmes (i.e. Data Science, Statistics, SAMB, SEF, SEL and Econ/Stats), as well as the MSci International Programme.

The equivalent responsibility for the MASS degree programmes is held by the Departmental Tutor in the Mathematics Department. However, the Departmental Tutor in the Statistical Science Department acts as the Statistics Tutor to MASS students, whom they may consult about the Statistics modules in their degree programme.

The Departmental Tutor is Dr Niloufar Abourashchi (n.abourashchi@ucl.ac.uk).

Programme Administrator

The Programme Administrator works closely with the Departmental Tutor and is the first point of contact for many aspects of your studies. For example, you should contact the Programme Administrator to notify absence from college, to submit medical documentation or to change a module registration.

The Programme Administrator is Karen Leport (k.leport@ucl.ac.uk).

Personal Tutor

UCL is committed to providing all students with the academic guidance and personal support that they need to flourish as members of our active learning and research community. As part of the wider support infrastructure provided by a programme, every undergraduate student will be assigned a member of staff who can provide constructive academic and personal development guidance and support.

At the start of the year, students will be provided with the name of their personal tutor, and information about how meetings will work. Students are encouraged to be proactive in engaging with their personal tutor: make sure you reply to emails from your personal tutor in a timely manner and always let them know if you can’t attend a meeting. It's important to build a relationship with your tutor so that you feel comfortable approaching them, should problems arise. Your personal tutor can also provide academic references for you, which is an important reason to build a professional relationship with them.

Your Personal Tutor’s name is shown on your Portico record (see “Portico” section on page 11) and it is expected that it will be the same person throughout the whole of your degree programme.

Further information:

- **Personal Tutors**

If you become unhappy with your degree programme, or a particular module, or with your progress, or if you cannot cope, or if you have other problems, you should immediately discuss the matter with the Departmental Tutor, Programme Administrator or your Personal Tutor. Such problems are often much simpler to deal with if they are addressed immediately. You will then be directed to an appropriate person for more specialist advice if that is necessary.
Other relevant staff roles

Careers Tutor: Dr Niloufar Abourashchi
Study Abroad Tutor: Dr Tom Honnor
Tutor to Affiliate students: Dr Yvo Pokern
Co-chair of Staff-Student Committee: Dr Ardo van den Hout
Chair of Departmental Teaching Committee: Dr Ardo van den Hout

How UCL and the Department will communicate with students

UCL will communicate with students via:

- **UCL student email** – Students should check their UCL email regularly.
- **UCL Moodle** – UCL’s online learning space, used by module organisers, programme leaders, departments and faculties to provide essential information in addition to learning resources.
- **myUCL** – A weekly term-time e-newsletter to all students (undergraduate and postgraduate) at UCL, which covers key internal announcements, events and opportunities.
- **UCL Instagram** – UCL’s official Instagram channel, featuring news, events, competitions and images from across the UCL community.
- **@ucl Twitter channel** – Sharing highlights of life at UCL from across UCL’s diverse community.

Email

Email is used for communication throughout the College and you will be allocated an email address by UCL. Please check your UCL email account regularly. There may be urgent messages left for you, e.g. from Student and Registry Services, the Teaching & Learning Office, your Personal Tutor, or from staff teaching modules that you attend.

Your tutors, lecturers and College administrative staff will use your UCL email address and expect you to read and act promptly upon all messages sent to you at this address. If you wish to use only your own email address from a provider external to the College, then it is your responsibility to arrange for emails to be forwarded from your College email address. However, UCL cannot be held responsible for mail that is delayed or lost as a result of being forwarded to an external provider. Any consequences arising from not acting upon emails to your UCL address rest with you.

DOSSSH

The Department maintains a Moodle space called the “Department of Statistical Science Student Home” (DOSSSH) to which all Statistical Science students have access. Please check the DOSSSH page regularly. The DOSSSH page contains notices about modules, examinations and other useful information about the Department, as well as downloadable forms and links to resources that are described elsewhere in this handbook.

Processing of personal information

Whilst you are a student at UCL, the College will need to store and communicate information about you. This section summarises UCL and Departmental procedures with respect to such information.
How UCL uses student information

UCL uses student information for a range of purposes, including the provision of teaching and learning, managing accommodation and ensuring health and safety. Further information about how UCL uses student information can be found in the UCL General Student Privacy Notice.

Further information:

- UCL Student Privacy Notice
- Privacy notice for COVID-19 NHS Test & Trace data collection
- UCL Information Security Group
- UCL Policy on Electronic Mail (EMAIL)
- UCL Data Protection Policy
- UCL Intellectual Property (IP) Policy

Students may send queries on data protection matters to the University Data Protection Officer: data-protection@ucl.ac.uk.

Portico

Portico is the main UCL student information system which is used by all students for:

- Updating personal data such as addresses or contact numbers
- Completing online module registration
- Viewing information about programmes/modules
- Viewing examination timetables and results
- Pre-enrolment and re-enrolment
- Applying for programme transfer
- Planning and recording skills development
- Applying for graduation ceremonies

Further information:

- Portico login
- What is Portico
- Portico support

If you need a document that can be used to confirm your registration status at UCL, you can print out a statement of student status letter via Portico. Just log into Portico and click on the Statement of Student Status link on your Portico home page. Alternatively you can send a request via askUCL or by email to studentstatus@ucl.ac.uk. Please note that the Department will NOT issue certificates of student status or attendance.

It is your responsibility to ensure that your personal details held on the UCL central record are correct and up-to-date. Instructions on how to update your personal information can be found on the UCL Students website. Any consequences arising from the failure to correct or update your personal information rest with you.

Return of coursework

Marked coursework, bearing a grade, may be returned to you in classes, or through the Teaching & Learning Office. These routes are not completely secure and may result in other students seeing your grade. If you are unhappy about this, you should discuss your concerns with the module tutor.

References

We need your explicit permission to give any reference for you. This applies to all references, (e.g. for a landlord, a prospective employer or a Masters degree programme).
Thus, when you give either the Department’s or a tutor's name as a referee, it is important that you complete and sign a “Reference Request” form confirming that you have done so. The form is available from the DOSSSH Moodle page (see page 10).

**CALENDAR OF EVENTS**

**UCL term dates**

Terms for the 2021/22 session are based on the pattern of 12 weeks, 11 weeks and 7 weeks.

<table>
<thead>
<tr>
<th>Term</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td>Monday 27 September 2021 – Friday 17 December 2021</td>
</tr>
<tr>
<td>Second Term</td>
<td>Monday 10 January 2022 – Friday 25 March 2022</td>
</tr>
<tr>
<td>Third Term</td>
<td>Monday 25 April 2022 – Friday 10 June 2022</td>
</tr>
</tbody>
</table>

For those departments that operate them, Reading Weeks are the weeks beginning Monday 08 November 2021 (Term 1, Week 7), and Monday 14 February 2022 (Term 2, Week 6).

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christmas College</td>
<td>Close 17:30 Thursday 23 December 2021</td>
</tr>
<tr>
<td>Closure</td>
<td>Open 09:00 Tuesday 04 January 2022</td>
</tr>
<tr>
<td>Easter College Closure</td>
<td>Close 17:30 Tuesday 12 April 2022</td>
</tr>
<tr>
<td></td>
<td>Open 09.00 Tuesday 19 April 2022</td>
</tr>
<tr>
<td>Bank Holidays</td>
<td>Closed - Monday 02 May 2022</td>
</tr>
<tr>
<td></td>
<td>Closed - Thursday 02 June 2022 to Friday 03 June 2022</td>
</tr>
<tr>
<td></td>
<td>Closed - Monday 29 August 2022</td>
</tr>
</tbody>
</table>

Further information:

- [Term dates and closures 2021/22](#)

**Key dates**

**Term 1**

- **Week 1**: All students have to carry out College enrolment and module registration. Further details concerning induction arrangements for new students are provided upon arrival at the Department.
  
  *College enrolment* is organised by Student and Registry Services, who send you information about the procedure before the start of the term.
  
  *Module registration* is done using the online Portico system. The procedure will be explained to you upon arrival (see also “Selecting Modules” section on page 21). Tutorial groups are allocated automatically and your groups will appear in your online timetable (see “Timetable” section on page 13).

- **Week 2**: Beginning of lectures for all modules in the Department of Statistical Science.

- **Week 5**: This is the deadline for making Term 1 module amendments.

- **Week 7**: This is Reading Week. Classes in the Department of Statistical Science are replaced by self-study activities, including some set by the module lecturers. Note that not all departments observe reading week and you must attend classes given in other departments if they continue during this time.

- **Week 11**: This is the deadline for making Term 2 module amendments.

- **Week 12**: End of all Term 1 teaching in the Department of Statistical Science.
**Term 2**

- **Week 1:** Beginning of lectures in the Department of Statistical Science. Students should check their online timetable for the Term 2 tutorial arrangements, and also check for any other timetable changes that may have occurred.

- **Week 6:** This is Reading Week. Refer to the corresponding item in Term 1 for details.

- **Week 11:** End of all teaching in the Department of Statistical Science.

**Term 3**

- The main examination period spans the majority of this term. The exact dates will be published on the Exams and assessments webpage nearer to the time.

Modules not organised by the Department of Statistical Science may not follow the above schedule. For further information you should check with the relevant teaching department.

**TEACHING AND STUDYING ARRANGEMENTS**

**Modules**

*Modules* are self-contained, credit-rated blocks of learning and teaching that make up a degree programme. A student normally takes modules equivalent to 120 credits in each year of full-time study; most individual modules are worth either 15 or 30 credits. Most Statistical Science modules consist of lectures supplemented by at least one of the following: tutorials, workshops, problem classes. The proportions of these activities vary over modules; details are provided in the UCL Module Catalogue. A few modules are projects.

Some new students will find they do not need to make selections as all their modules are compulsory in year 1. If students need to choose modules, information about how and when to do this is provided later in the handbook (see “Selecting Modules” section on page 22).

**Timetable**

The combined teaching schedule for all your modules, plus any programme level events, can be found on your personal online timetable. After making your module selections on Portico, tutorial allocation will be arranged by the relevant Teaching & Learning Administrator before lessons start and your tutorial group will automatically appear in your online timetable. However, it may take one or two days after registration has been approved before all of the classes appear on your personal timetable, particularly for tutorials. Check your timetable frequently, in case alterations have been made. Note also that, once allocated, your tutorial group will not be changed unless you can demonstrate a timetable clash, or you have switched your mode of attendance between on campus and online.

Although the timetable states that lectures (and other classes) begin and end on the hour, there is a College-wide agreement that this refers to a starting time of 5 minutes past the stated hour and a finishing time of 5 minutes to the hour. This should give you time to get to your next lecture before it is due to start.

**Scheduled teaching and learning activities**

This section details the various teaching event types commonly employed in the delivery of Statistical Science modules. For other modules, refer to the corresponding information published by the relevant teaching department.
**Lectures**
These are formal and can involve large groups. Equivalent content will also be made available on Moodle through videos and other forms of material.

**Tutorials**
Weekly academic tutorials are provided for all first and second year and some final year students. These are less formal than lectures and enable you to raise your own questions about course material, as and when they arise from lectures or coursework. You normally have different academic tutors in Terms 1 and 2.

**Problem classes**
These involve discussing coursework with the whole class.

**Workshops**
Workshops, also referred to as "practical classes" within the Department, involve doing set work under guidance from the module staff. Some workshops will take place in (virtual) computer cluster rooms.

**Projects**
These normally involve a small amount of class training. Most of the work is done under individual supervision from a staff member whom you meet once a week to discuss your progress.

**Office hours**
For modules offered by the Department of Statistical Science, each member of the academic and teaching staff should nominate at least one weekly office hour during term time in which they will be available to answer general queries arising from lectures, problem sheets, etc. If you need to consult a module lecturer, please do so in an office hour. In particular, in the period leading up to any assessment (see “In-Course Assessment” section on page 43) the module lecturer will set aside a fixed time or times at which (s)he will be available to answer questions about the assessment. (S)he will not answer queries about the module outside these times until the assessment is over.

**Learning resources and key facilities**

**UCL Library Services**
UCL Library Services provides support to students online and in person via our libraries. UCL has 16 libraries covering a wide range of specialist subjects with expert staff that students can ask for help. UCL Library Services provides access to a huge range of digital and print resources. The UCL Library Services page has information for students about using the library, services available, electronic resources and training and support. Subject guides provide targeted information on resources and support available, and online reading lists, which are also linked to Moodle modules, will provide students with access to core readings for their modules.

The Science Library (in the DMS Watson building, Malet Place) contains an exceptionally good collection of statistical science text and reference books. Copies of most books that are highly recommended for modules taught by the Department are included in the Short Loan Collection on the ground floor in the Science Library. The Collection consists of all subjects of the Science Library and is arranged on open access shelves in one alphabetical sequence under authors. The period of loan for statistical science books is 2 days. Books cannot be taken out of the room without being issued. Other recommended books, for which there is
less demand, are kept on the third floor of the Science Library. The loan period assigned to these is one week. There are longer loan periods for other books.

UCL Library Services has developed a set of online training materials, to help users find and use information effectively. Topics covered include finding materials in reading lists; search tips and techniques; accessing electronic resources; referencing; and copyright and plagiarism issues.

Please note that information on library opening times may be subject to change due to Covid-19 – please check the link to the Library below for current information.

Further information:
- Library information for students
- Library subject guides
- ReadingLists@UCL

**UCL Information Services Division (ISD)**

The UCL Information Services Division (ISD), the primary provider of IT services to UCL, offers IT learning opportunities for students and staff in the form of ‘How to’ guides which provide step-by-step guidance to all of ISD’s key services, including email and calendar services, user IDs and passwords, print, copy and scanning, wifi and networks. There are also opportunities for digital skills development through face-to-face training in areas such as data analysis, programming, desktop applications and more, along with individual support through drop-ins and via the ISD Service Desk. UCL also has a licence for Lynda.com (now migrated to Linkedin Learning) which provides thousands of high quality video-based courses from programming to presentation skills. Learning on Screen (“bob”) provides students with access to an archive of 65 free-to-air channel programming for educational usage. In addition, Kanopy (“thoughtful entertainment”) is available to UCL students, and offers a wide range of movies.

**E-learning services** available to students include Moodle, Turnitin and Lecturecast and allow students to access online course materials or take part in online activities such as group work, discussions and assessment. Students can re-watch some lectures using the Lecturecast service and may also use interactive tools in the classroom.

ISD provides desktop computers and laptops for loan in a number of learning spaces. Information on Learning and Teaching spaces as well as a map of computer workrooms is available on the ISD website. Computers at UCL run a Desktop@UCL service which provides access to hundreds of software applications to support students. It is also possible to access a large range of applications remotely, from any computer, using the Desktop@UCL Anywhere service. Students also have access to a range of free and discounted software via ISD Software for Students.

All students are encouraged to download the UCL Go! app, available for iOS and Android devices. The app gives access to Moodle and timetabling and shows where desktop computers are available on campus.

Please note that information on ISD services may be subject to change due to Covid-19 – please check the webpages linked above for current information.

**UCL Centre for Languages & International Education (CLIE)**

The UCL Centre for Languages & International Education (CLIE) provides modern foreign language, British Sign Language and English for Academic Purposes (EAP) modules for UCL students. CLIE also heads the UCL Academic Communication Centre (ACC). The ACC offers discipline-specific academic communication support to both native and non-native English speakers currently studying an undergraduate or postgraduate degree at UCL. Evening courses are offered in nine foreign languages across a range of levels to support
UCL students, staff and London’s wider academic and professional community. Students can access language-learning resources online through the CLIE Self-Access Centre, including films and documentaries and books for self-study.

Further information:
- UCL Centre for Languages & International Education
- CLIE Self-Access Centre
- Academic Communication Centre (ACC)

**Sustainable UCL**

UCL launched its Sustainability Strategy in 2019 – one of the most ambitious across the UK higher education sector. It includes many headline commitments – to be a net zero carbon institution by 2030; to be single use plastic free; and that every student has the opportunity to engage with sustainability during their time at UCL. The Sustainable UCL team offers students many different opportunities to learn about sustainability as part of their studies or extracurricular activities.

In particular, students can engage with sustainability in their free-time by joining one of UCL’s green clubs and societies, volunteer as a Sustainability Ambassador, or take part in UCL’s Student Sustainability Council to help direct UCL’s sustainability vision and represent the students’ voice on sustainability.

Further information:
- Sustainable UCL Website
- Sustainability Student Opportunity Website
- Sustainability Strategy
- Green clubs and societies
- Sustainability Ambassador
- Student Sustainability Council

**Moodle**

Moodle is UCL’s online learning space. It includes a wide range of tools which can be used to support learning and teaching. Moodle is used to supplement taught modules, in some cases just by providing essential information and materials, but it can also be integrated more fully, becoming an essential component of a module. Some modules may use Moodle to provide access to readings, videos, activities, collaboration tools and assessments.

All modules in the Department of Statistical Science will have a presence on Moodle, and students registered for these modules should use the service to access online resources such as module information, course notes and assessment material. Students are given additional printing credits, to allow them to print copies of the lecture notes for each of their statistics modules.

Further information:
- UCL Moodle
- Moodle Frequently Asked Questions
- Moodle Quick Start Guide for Students

**Feedback on student work**

Students receive feedback on all items of assessed coursework (see “Components of Compulsory Assessment” section on page 43) and on selected items of non-assessed work. Feedback may be given in tutorials, problems classes or electronically. It may take the form of verbal or written comments, either personalised or in the form of general points that
emerged from the class as a whole. These comments are intended to help you see what was done well and where there is room for improvement. For assessed work, the comments are also provided to help justify the grade awarded.

For assessed work, feedback will include a *provisional* letter grade. The correspondence between letter grades and percentage marks, along with guidance regarding the interpretation of each grade, is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Mark</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>≥ 80.00%</td>
<td>The criteria for an A grade are all met. Additionally, exceptional quality has been demonstrated with respect to at least two of the following: understanding, insight, depth of analysis or clarity of discussion, with evidence (where appropriate) of relevant knowledge or reading.</td>
</tr>
<tr>
<td>A</td>
<td>70.00% to 79.99%</td>
<td>The criteria for a B grade are all met, along with one or more of the following: high quality answers in a wide range of questions, evidence of a very sound understanding, thoroughness of discussion and clarity of expression, evidence of insight, wide knowledge or reading. There may be a small number of relatively minor errors or inconsistencies, but there should not be serious errors in knowledge or understanding.</td>
</tr>
<tr>
<td>B</td>
<td>60.00% to 69.99%</td>
<td>Good understanding of the questions asked, good knowledge of the main aspects of the subject and good levels of appropriate skills (such as the ability to carry out calculations and manipulations, and to develop a logical argument). At the higher end of the range, one would expect to see clear expression and presentation. A few mistakes are allowable, providing they are not serious.</td>
</tr>
<tr>
<td>C</td>
<td>50.00% to 59.99%</td>
<td>Reasonable understanding of the subject, and a reasonable level of ability in the appropriate skills. Work in this category may fail to reach Grade B either because it does not demonstrate a wide enough range of knowledge (e.g. some good answers, but too many questions or part questions either omitted or answered inappropriately), or because skill deficiencies lead to too many mistakes or badly presented answers.</td>
</tr>
<tr>
<td>D</td>
<td>40.00% to 49.99%</td>
<td>Basic but limited understanding of the subject, together with some basic ability in the appropriate skills. There may be many mistakes, but there will be clear evidence of some relevant knowledge.</td>
</tr>
<tr>
<td>F</td>
<td>1.00% to 39.99%</td>
<td>Not of pass standard. At the higher end of the scale a very limited understanding may be present, but answers will present little evidence of relevant knowledge and contain many mistakes, irrelevancies or misunderstandings. At the lower end, answers will show little or no understanding of either the questions or the subject.</td>
</tr>
<tr>
<td>AB</td>
<td>≤ 0.99</td>
<td>No/ minimal attempt. Marks in this range are awarded to students who are absent or do not submit an assessment, or attempt so little of it that it cannot be assessed.</td>
</tr>
</tbody>
</table>

**Model answers**

Many Statistical Science modules have regular sets of exercises. These are designed to help students learn and, in most modules, it is essential that students do the exercises in order to understand the subject. Module lecturers are often asked to provide model answers to the exercise sheets. There is a similar demand for model answers to past exam papers.
Lecturers do provide model or outline answers to some exercises and to some exam questions, but it is Departmental policy not to do so in general, for a number of reasons:

- We do not want to encourage students to “learn answers” but rather to create a culture in which they know that they must work out the answer for themselves. Often it is not the answer, but the process of working it out that is the main learning experience.

- We are trying to encourage independent thought and understanding, so that students can answer (more or less well) different questions, similar questions in different forms, and to solve related problems. Understanding in statistical science, and in mathematics, comes much more from doing than from reading.

- It is important for students to learn how to persevere with a problem when they are “stuck”. In the past, we have found that model answers handed out in one year are often passed on to students in a subsequent year, to the detriment of the learning process.

A common argument put forward by students is “Yes, we want to do the exercises, but we would like model answers in order to check that we have the right method and answer”. Of course it can sometimes be helpful to look at answers, but it is also important to learn how to verify answers when they are not otherwise available, and to gain the confidence to know when you are right. One function of tutorials is to discuss problems or work through them with the teacher, and this is one way in which answers may be obtained. Part of the skill of the teacher is to help the student to progress without “spoon feeding” the answer.

Having said all of this, the Department recognises that while preparing for examinations in particular, it can be useful for students to have the final answers (rather than complete solutions) to past exam questions: this provides some confidence that the answers obtained while attempting past papers are correct. All teaching staff should provide such “final” answers routinely, for selected exam papers from 2019 onwards, via their module Moodle pages (see page 16).

**WHAT IS EXPECTED OF STUDENTS**

**Student code of conduct**

UCL enjoys a reputation as a world-class university. It was founded on the basis of equal opportunity, being the first English university to admit students irrespective of their faith and cultural background and the first to admit women. UCL expects its members to refrain from interfering with the proper functioning or activities of UCL, or of those who work or study at UCL. Students should ensure they read and familiarise themselves with UCL’s Student Code of Conduct and other related policies and should be aware that any inappropriate behaviour may lead to actions under UCL’s Student Disciplinary Procedures.

Further information:

- [UCL Code of Conduct for Students](#)
- [UCL Disciplinary Code and Procedure in Respect of Students](#)
- [UCL Prevention of Bullying, Harassment and Sexual Misconduct Policy](#)
- [UCL Code of Practice on Freedom of Speech](#)
- [UCL Religion and Belief Equality Policy](#)

**Attendance requirements**

UCL expects students to attend all the scheduled learning events which appear on their timetable as this gives students the best chance of academic success. This includes all events set out in the programme handbook or those provided to students during a module,
including personal tutorials. A central student attendance system - RegisterUCL – is used to record attendance at teaching events.

Each Faculty sets minimum attendance requirements. Students should familiarise themselves with specific programme or module attendance requirements and must ensure that they engage with the method of recording attendance which is required by UCL. Students are responsible for ensuring that their attendance is recorded.

Further information:
- [Attendance at UCL](#)

**Absence from assessment**

Any student who is absent from an assessment without prior permission will receive a mark of 0.00% unless they formally request to defer their assessment to a later date by submitting a claim for Extenuating Circumstances with appropriate supporting evidence (see “How to apply for extenuating circumstances” section on page 42). If Extenuating Circumstances are not approved, the mark of 0.00% will stand and the student will be considered to have made an attempt.

**Visa students: absence from teaching and learning activities**

In line with UCL’s obligations under UK immigration laws, UCL is required to report to UK Visas and Immigration (UKVI) when a student has not been engaging with their studies. RegisterUCL is used by departments and the central Student Immigration Compliance team to report on student attendance. This is not only to meet the UKVI requirements, but also to identify any problems as early as possible to ensure action is taken to advise or assist the student.

Further information:
- [Student visa responsibilities](#)

**Studying**

**Tutorials**

Tutorials in the Department of Statistical Science are compulsory and provide the opportunity to get personal attention. It is important to prepare yourself by reading through the latest lecture material and trying the relevant exercises sheets before the tutorial. Think of questions relating to the course material to ask; make a note of points that you don't understand so that you can have them clarified in tutorials. Have your recent lecture notes and exercise sheets to hand for each tutorial, in particular those relating to material that you know will be discussed.

**Lectures, workshops and problem classes**

Most new material is presented in lectures; some might be introduced by your trying ideas in workshops. The workshops give the opportunity to solve problems with guidance, a helpful alternative method of learning. In most modules learning is sequential; you need to have met and understood past material in order to follow the current material. You are therefore strongly advised to attend all classes. Teaching staff and demonstrators are able to give some personal attention in workshops; absences are likely to be noted.

Staff sometimes receive complaints from students about disruption (caused by other students) in large classes. All students are respectfully asked to consider others when in the classroom: excessive disruption can have a negative impact on the learning experience for everybody. Any student who is persistently disruptive will be asked to leave the classroom,
... and will receive an official warning from the Departmental Tutor with an appropriate note placed on the student's record.

Coursework

In the Department of Statistical Science regular, often weekly, coursework is set. Some of this is for in-course assessment, but much of it is to help you to learn the material being taught. You will normally receive feedback from coursework during problem classes, tutorials or workshops, as appropriate for the module. You will generally be expected to hand in your work so that we can monitor your progress. The detailed arrangements for coursework will vary between modules and you will be told about them at the start of each module. You should ensure that you know what is required for each module that you take.

Our teaching assumes that you have attempted the coursework, and we may refer to it in subsequent classes and coursework. In-course assessment is compulsory: it contributes to your final examination mark for that module and non-submission may mean that you cannot pass the module (see “Assessment” section on page 43). Furthermore, for modules with tutorial classes your tutor will record whether you have submitted each piece of non-assessed coursework by the specified deadline and whether it is a reasonable attempt (i.e. an attempt of pass standard). The Department of Statistical Science expects a reasonable attempt for at least 70% of non-assessed coursework in each module. If you fail to satisfy this requirement you may be barred from taking the examination for the module and this may mean that you cannot progress to your next year of study.

Ensure that you leave yourself enough time to complete each exercise sheet. Weekly sets of exercises may well need about 5 hours work on them, including reading time. In some modules, more substantial sets of exercises are given out on a fortnightly basis: it is recommended that you start them in the first of the two weeks allowed. A prompt start to exercises set for in-course assessment is well advised.

It is good practice to aim for legibility, accuracy and clarity in your coursework, whether or not it is for in-course assessment (the same applies to examinations, of course!).

Self study

Before a live session, study the material on Moodle, such as videos and notes, carefully. Work through the details slowly and annotate your notes in a different colour to that used in taking them; this can help with revision. It is important to keep on top of each module by reviewing the appropriate notes before the next class (lecture, tutorial, problem class or workshop). Read supporting material from textbooks as necessary. Start coursework well in advance of the submission date (see the above comments on coursework).

The following will help you understand and communicate your understanding of course material:

- continual practice at solving problems;
- thorough preparation for all classes;
- regular revision of course material as the module progresses;
- seeking help when you have difficulties.

The Department has prepared a self assessment questionnaire to help you to evaluate what you are getting out of your studies and to take responsibility for your own progress. This questionnaire is available on the DOSSSH Moodle page (under the Student Feedback topic). Try completing it for each module during reading week.

Total workload

For a typical 15 credit module, you should expect a workload of about 9 or 10 hours per week – this includes lectures, workshop, problems class, tutorial, reading and coursework, as
appropriate for each module. For example, if you are studying the equivalent of four 15 credit modules per term, your total weekly workload is expected to be around 40 hours.

As part of monitoring your own progress, you may find it helpful, in some weeks, to keep a diary of the time you spend actively working.

DEGREE PROGRAMME SPECIFICATIONS

Modules

Modules are the individual units of study that lead to the award of credit. Many programmes offer students the opportunity to choose between different modules that they are interested in. However some new students will find they do not need to make selections as all their modules are compulsory in year 1.

Module codes

Each module has a code: this consists of a four character prefix that indicates the department responsible for organising the teaching of that module, followed by four numbers to provide a unique code within that department. Modules in Statistical Science have the prefix STAT.

Levels of modules

All UCL modules have an associated academic level that determines the difficulty of the module and aligns with the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (FHEQ). These levels are as follows:

- Level 4 (the level of most first year modules)
- Level 5 (the level of most second year modules)
- Level 6 (the level of most third year modules)
- Level 7 (the level of all fourth year MSci modules)

The levels of all modules offered by the Department of Statistical Science are given in the UCL Module Catalogue (see next section). Students must take modules at an appropriate level for the degree programme for which they are registered (see “Award and Classification” section on page 50). For example, in order to qualify for a Bachelors degree with honours, a student must have taken a maximum of 150 credits at Level 4 and a minimum of 90 credits at Level 6 over their entire programme.

UCL module catalogue

UCL's module catalogue gives access to a comprehensive catalogue of all modules across the whole of UCL, published in a consistent, searchable and accessible format.

The entries for Statistical Science modules include outline syllabuses. Some indication is also usually given of areas where the course material may be applied in practice; this is to help students decide which options might be most suitable for them.

Further information

- UCL Module Catalogue

Language modules

Language modules for Statistical Science students are available at the UCL Centre for Languages & International Education (CLIE). Languages include: Arabic, Dutch, French, German, Italian, Japanese, Mandarin, Portuguese, and Spanish.
Languages are offered as 15 credit modules across 7 language levels from complete beginner to professional. Two levels may be combined to form a 30 credit module. The correspondence between language levels and those described on page 21, and a full module listing are available on the CLIE website.

The CLIE tutors will assist students in selecting the right language level as part of the registration process. If you have not previously taken a module at the CLIE for the language you wish to study then you will need to have an online interview with a CLIE language tutor.

**Selecting modules**

Each degree programme has some compulsory modules that cover core material from each of the subjects in the degree title. These are then supplemented through the choice of appropriate options to make up a total of 120 credits in any particular year.

To take an optional module, you must register for it on Portico. Instructions on how to do this can be found on the Portico website (log on to Portico and select the “Module registration documentation” option from within the “Module Selection” container). In choosing options, you are advised to try and balance the amount of work evenly between the two terms.

There is normally a specified list of options but, subject to approval, you may choose a limited number (normally no more than 30 credits per year) of options from other modules offered by the College, provided that there is no timetable clash. These modules are sometimes referred to as electives. The timetable will not be amended so that you may choose an elective. However, third and fourth year students may usually take electives that clash with occasional workshops for statistics modules. In this case, it is the student’s responsibility to catch up on any work missed as a result of the clash.

Students taking a project in their third year will be asked to choose a topic from a list suggested by staff. You must discuss a proposed topic with the supervisor named on the list before registering for it. These topics are allocated on a first taker basis so you must not delay making your choice and getting a supervisor’s agreement. You may suggest a topic of your own but you must see the Departmental Tutor to discuss whether it will make a suitable project and to find out who might supervise it.

The deadlines for making module selections will be published each year in the “Module Selection Task” on Portico. It is therefore essential that you make sure you research your module choices thoroughly before selecting them. If you want to make a change after you have confirmed your module choices, please consult the Programme Administrator. Changes can be made by the Programme Administrator and you will need to request any changes to your Term 2 module registrations in good time before the relevant deadline.

Please remember that your registration for any optional module is subject to approval both by the Departmental Tutor and by the department offering the option. Attempts to register for unsuitable options will be rejected. If you are in any doubt as to whether you will be allowed to take a particular option, you should discuss it with both the Departmental Tutor and with the department offering the option, before attempting to register for it on Portico.

Further information

- [Portico login](#)
- [Module registration](#)

**Module selection and verification deadlines**

You will receive an email through the Student Records system, Portico, with details of module registration deadlines. Later on, you will also be asked to check in Portico and confirm that your module registrations are correct. It is important that you check that you are registered for the correct modules so that you are entered for the right assessments.
New Process for Choosing Modules for 2022/23 (continuing students)

Continuing undergraduate students will have an opportunity to make an initial selection of modules for 2022/23 at the end of the spring term, with places being confirmed in the summer.

BSc Data Science

Aims

This programme provides a comprehensive training in the statistical basis of data science, along with a solid grounding in the computing skills and algorithmic reasoning necessary for modern data analysis. As a graduate of the programme, you should be able to proceed directly to a post as a data scientist in industry, commerce or government. The skills you will acquire could also be applied to the founding or management of businesses relating to a broad set of data analytic services. The programme is also designed to provide you with a preparation for postgraduate study in statistics, machine learning and other specialised fields in applied data science.

Objectives

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- Mature algorithmic thinking and its relevance to data analytics and machine learning.
- Proficiency in at least two major programming languages.
- Mathematical methods associated with the above areas.

On successful completion of this programme, you will be able to do the following.

- Explain the concepts and properties of probabilistic modelling and carry out basic calculations associated with this.
- Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and predictive modelling in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.
- Explain, and apply to simple situations, basic ideas in computer science such as programming principles, data structures and optimisation.
- Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.
- Select and apply appropriate statistical methods and computational methods, and interpret the results.
- Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.
Curriculum

Year 1

Compulsory Modules

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>INST0001</td>
<td>Database Systems A</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0040</td>
<td>Programming Fundamentals</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Modules

You must select the remaining 15 credits from a wide range of undergraduate modules, e.g. Information Studies, Management, Mathematics, Science & Technology Studies.

BSc Statistics

Aims

This programme provides a broad, thorough and intellectually challenging training in the theory and practice of statistical science. As a graduate of the programme, you should be able to proceed directly to a post as a statistician in industry, commerce or the civil service, or by profiting from the general numeracy and reasoning skills acquired during the programme, to take up trainee positions in accountancy, insurance or management. The programme is also designed to provide you with a preparation for postgraduate study in statistics.

Objectives

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- At least one major statistical computer package.
- Mathematical methods associated with the above areas.

On successful completion of this programme, you will be able to do the following.

- Explain the concepts and properties of discrete and continuous random variables, common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.
- Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.
- Explain, and apply to simple situations, basic ideas in applied probability such as Markov chains and Markov processes (discrete states only).
- Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.
- Select and apply appropriate statistical methods, and interpret the results.
• Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.

Curriculum

Year 1

Compulsory Modules

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

Elective Modules

You may select up to 30 credits from a wide range of undergraduate modern foreign language modules. You must select the remaining 15-45 credits from a wide range of undergraduate modules, e.g. Economics, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies. Below is a list of suggested elective modules.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0011</td>
<td>Basic Microeconomic Concepts</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0044</td>
<td>An Introduction to Applied Economic Analysis</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>HPSC0003</td>
<td>History of Science: Antiquity to Enlightenment</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>HPSC0006</td>
<td>Science Policy</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MATH0048</td>
<td>Mathematical Analysis</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0003</td>
<td>Communication and Behaviour in Organisations</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0004</td>
<td>Accounting for Business</td>
<td>4</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0048</td>
<td>Understanding Management</td>
<td>4</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>PSYC0038</td>
<td>Introduction to Social and Business Psychology</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>PSYC0039</td>
<td>Introduction to Psychology</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0040</td>
<td>Programming Fundamentals</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

If you wish to select an elective module from outside this list, please attend one of the module registration sessions or office hours provided by the Departmental Tutor, who will discuss the appropriateness of the alternative module and assist you to enter the selection on Portico.

Year 2

Compulsory Modules

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0047</td>
<td>Advanced Linear Algebra</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0005</td>
<td>Probability and Inference</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0006</td>
<td>Linear Models and the Analysis of Variance</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

Optional Modules

You must select at least 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimisation Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>
**Elective Modules**

You must select the remaining 15-30 credits from a wide range of undergraduate modules, e.g. Economics, Languages, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies. You may not select a Level 4 Mathematics or Statistical Science module. Below is a list of examples of elective modules.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC########</td>
<td>Modern Foreign Language, e.g. Arabic, Dutch, French, German, Italian, Japanese, Mandarin, Portuguese, Spanish</td>
<td>4-6</td>
<td>15-30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MATH0048</td>
<td>Mathematical Analysis</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0004</td>
<td>Accounting for Business</td>
<td>4</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0048</td>
<td>Understanding Management</td>
<td>4</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0059</td>
<td>Managerial Accounting for Decision Making</td>
<td>5</td>
<td>15</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

**Year 3**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0008</td>
<td>Statistical Inference</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0035</td>
<td>Project</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

**Optional Modules**

You must select at least 45 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0009</td>
<td>Stochastic Systems</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0010</td>
<td>Forecasting</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0011</td>
<td>Decision and Risk</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0013</td>
<td>Stochastic Methods in Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0014</td>
<td>Medical Statistics 1</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0015</td>
<td>Medical Statistics 2(^1)</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0017</td>
<td>Selected Topics in Statistics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0018</td>
<td>Stochastic Methods in Finance II(^2)</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0019</td>
<td>Bayesian Methods in Health Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0020</td>
<td>Quantitative Modelling of Operational Risk and Insurance Analytics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimization Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

**Elective Modules**

When choosing any elective modules, please bear in mind that you must have selected a maximum of 150 credits at Level 4 over your entire programme in order to be considered for the BSc Statistics qualification at the end of year 3.


---

\(^1\) You may only select this module in combination with STAT0014: Medical Statistics 1.

\(^2\) You may only select this module in combination with STAT0013: Stochastic Methods in Finance.
BSc Statistics, Economics and Finance (SEF)

Aims
This programme provides a thorough and intellectually challenging training in quantitative methods together with a basic knowledge of Economics and Finance. These different components reinforce one another to provide a coherent and wide-ranging foundation in modern quantitative techniques. As a graduate of the programme, you should be able to profit from the general numeracy and reasoning skills acquired in order to take up trainee positions in accountancy, finance, insurance or management, or to proceed to a position as a statistician in industry, commerce or public organisations. The programme is also designed to provide you with a preparation for postgraduate study in statistics, economics or finance. Via appropriate choice of options, the programme may also provide you with a foundation for a career, or for further study, in operational research.

Objectives
The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- At least two major statistical computer packages; simple concepts of programming for statistical analysis.
- Fundamentals of microeconomics including supply and demand, consumer choice, firm behaviour, product markets, labour markets and international trade, and their relation to applied topics.
- Fundamentals of macroeconomics including national accounts, relations between private sector and government, the problems of inflation, unemployment, balance-of-payments and growth, aggregate demand and supply, and their relation to applied topics.
- Theories and empirical evidence concerning financial management, risk and the operation of financial markets.
- Mathematical methods associated with the above areas.

On successful completion of this programme you will be able to do the following.

- Explain the concepts and properties of discrete and continuous random variables, common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.
- Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.
- Explain the ideas of Markov chains, Markov processes (discrete states only) and renewal processes, and use them in simple applications, including queues and reliability.
- Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.
- Select and apply appropriate statistical methods, and interpret the results.
- Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.
• Formulate economic arguments and understand the role of argument and evidence in the policy-making process.
• Use the basic mathematical and probabilistic tools of modern finance, and apply the relevant techniques for the pricing of derivatives;

**Curriculum**

**Year 1**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0002</td>
<td>Economics I (Combined Studies)</td>
<td>4</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0004</td>
<td>Accounting for Business</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

**Year 2**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0047</td>
<td>Advanced Linear Algebra</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0005</td>
<td>Probability and Inference</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0006</td>
<td>Linear Models and the Analysis of Variance</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

**Optional Modules**

You must select at least 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0004</td>
<td>Applied Economics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0001</td>
<td>Economics 2 (Combined Studies)</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

You may select up to 30 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSIN0059</td>
<td>Managerial Accounting for Decision Making</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimisation Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

**Elective Modules**

You may select up to 15 credits from a wide range of undergraduate modules, e.g. Economics, Languages, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies. You may not select a Level 4 Mathematics or Statistical Science module.

---

3 STAT0001 is a prerequisite for the third year optional modules ECON0001: Economics of Financial Markets, ECON0019: Quantitative Economics and Econometrics, and ECON0113: Advanced Economics of Finance.

4 MSIN0059 is a prerequisite for the third year optional modules MSIN0039: Corporate Financial Strategy, and MSIN0028: Mergers and Valuation.
### Year 3

#### Compulsory Modules

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0008</td>
<td>Statistical Inference</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0013</td>
<td>Stochastic Methods in Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Optional Modules

When choosing your optional and elective modules, please bear in mind that you must have selected a maximum of 150 credits at level 4 and a minimum of 90 credits at level 6 over your entire programme in order to be considered for the BSc Statistics, Economics and Finance qualification at the end of year 3.

You must select at least 30 credits and at least two modules from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0009</td>
<td>Stochastic Systems</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0010</td>
<td>Forecasting</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0011</td>
<td>Decision and Risk</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0014</td>
<td>Medical Statistics 1</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0015</td>
<td>Medical Statistics 2</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0017</td>
<td>Selected Topics in Statistics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0019</td>
<td>Bayesian Methods in Health Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimization Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0035</td>
<td>Project⁶</td>
<td>6</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0036</td>
<td>Project⁶</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

You must select at least 15 credits from the following, unless you have already taken one of these modules or ECON0045: Money and Banking in year 2.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0001</td>
<td>Economics of Financial Markets⁷</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0048</td>
<td>Economics of Finance⁸</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0113</td>
<td>Advanced Economics of Finance⁸,⁹</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0018</td>
<td>Stochastic Methods in Finance II</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0020</td>
<td>Quantitative Modelling of Operational Risk and Insurance Analytics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

You may select up to 60 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0019</td>
<td>Quantitative Economics and Econometrics⁷</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>ECON0027</td>
<td>Game Theory</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0029</td>
<td>Economics of Information</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0028</td>
<td>Mergers and Valuation¹⁰</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0039</td>
<td>Corporate Financial Strategy¹⁰</td>
<td>6</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0059</td>
<td>Managerial Accounting for Decision Making</td>
<td>5</td>
<td>15</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

---

⁵ You may only select this module in combination with STAT0014: Medical Statistics 1.
⁶ You may not select both STAT0035: Project and STAT0036: Project. A list of available projects is posted on the DOSSSH page.
⁷ You may only select this module if you took STAT0001: Economics 2 (Combined Studies) in year 2.
⁸ You may not select both ECON0048: Economics of Finance and ECON0113: Advanced Economics of Finance.
⁹ You may only select ECON0113 if you took STAT0001: Economics 2 (Combined Studies) in year 2. Even then, this module is expected to be challenging for SEF students and ECON0048 may be a more accessible alternative.
¹⁰ You may only select this module if you took MSIN0059: Managerial Accounting for Decision Making in year 2.
Elective Modules

You may select up to 45 credits from a wide range of undergraduate modules, e.g. Economics, Languages, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies. You may not select a Level 4 Mathematics or Statistical Science module, or MATH0031: Financial Mathematics.

BSc Statistics, Economics and a Language (SEL)

Aims

This programme provides a thorough and intellectually challenging training in quantitative methods, together with a basic knowledge of Economics and a reasonable ability to communicate in a second language in addition to English. As a graduate of the programme, you should be able to profit from the general numeracy, reasoning and linguistic skills acquired in order to take up a trainee position in accountancy, finance, insurance or management, or to proceed to a position as a statistician in industry, commerce or public organisations. The study of a foreign language recognises that increasingly these careers have an international dimension, and upon successful completion of this programme you should be able to converse reasonably fluently (according to the level) with native speakers and discuss personal, social, current and professional issues using appropriate structures. The programme is also designed to provide you with a preparation for postgraduate study in statistics or economics. Via appropriate choice of options, the programme may also provide you with a foundation for a career, or for further study, in operational research.

Objectives

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- At least one major statistical computer package.
- Fundamentals of microeconomics including supply and demand, consumer choice, firm behaviour, product markets, labour markets and international trade, and their relation to applied topics.
- Fundamentals of macroeconomics including national accounts, relations between private sector and government, the problems of inflation, unemployment, balance-of-payments and growth, aggregate demand and supply, and their relation to applied topics.
- Mathematical methods associated with the above areas.
- The structure/culture of the target language, and at higher levels, also of the business, social, historical and political contexts in which the language is currently used.

On successful completion of the programme you will be able to do the following.

- Explain the concepts and properties of discrete and continuous random variables, common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.
- Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.
- Explain the ideas of Markov chains, Markov processes (discrete states only) and renewal processes, and use them in simple applications, including queues and reliability.
• Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.
• Select and apply appropriate statistical methods, and interpret the results.
• Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.
• Formulate economic arguments and understand the role of argument and evidence in the policy-making process.
• Explain and use language concepts (as appropriate for the level).
• Recognise the structure of the language in a variety of situations.
• Apply the appropriate register for the situation.
• Critically evaluate different text types.

**Curriculum**

**Year 1**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0002</td>
<td>Economics I (Combined Studies)</td>
<td>4</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

**Optional Modules**

You must select 15 credits from a wide range of undergraduate modern foreign language modules. You can study at most two languages and select at most one module at language level 1 throughout your degree programme.

**Year 2**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0047</td>
<td>Advanced Linear Algebra</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0005</td>
<td>Probability and Inference</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0006</td>
<td>Linear Models and the Analysis of Variance</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

**Optional Modules**

You must select at least 15 credits from a wide range of undergraduate modern foreign language modules. You can study at most two languages and select at most one module at language level 1 throughout your degree programme.

You must select at least 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0004</td>
<td>Applied Economics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0001</td>
<td>Economics 2 (Combined Studies)(^{11})</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

\(^{11}\) STAT0001 is a prerequisite for the third year optional modules ECON0019: Quantitative Economics and Econometrics, and ECON0055: Economics of Science.
You may select up to 30 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimisation Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

**Elective Modules**

You may select up to 15 credits from a wide range of undergraduate modules, e.g. **Economics, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies.** You may not select a Level 4 Mathematics or Statistical Science module.

**Year 3**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0008</td>
<td>Statistical Inference</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

**Optional Modules**

When choosing your optional and elective modules, please bear in mind that you must have selected a maximum of 150 credits at level 4 and a minimum of 90 credits at level 6 over your entire programme in order to be considered for the BSc Statistics, Economics and a Language qualification at the end of year 3.

You must select at least 15 credits from a wide range of undergraduate **modern foreign language modules.** You can study at most two languages and select at most one module at language level 1 throughout your degree programme.

You must select at least 45 credits and at least three modules from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0009</td>
<td>Stochastic Systems</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0010</td>
<td>Forecasting</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0011</td>
<td>Decision and Risk</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0013</td>
<td>Stochastic Methods in Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0014</td>
<td>Medical Statistics 1</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0015</td>
<td>Medical Statistics 2(^{12})</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0017</td>
<td>Selected Topics in Statistics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0018</td>
<td>Stochastic Methods in Finance II(^{13})</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0019</td>
<td>Bayesian Methods in Health Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0020</td>
<td>Quantitative Modelling of Operational Risk and Insurance Analytics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimization Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0035</td>
<td>Project(^{14})</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0036</td>
<td>Project(^{14})</td>
<td>6</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

\(^{12}\) You may only select this module in combination with STAT0014: Medical Statistics 1.

\(^{13}\) You may only select this module in combination with STAT0013: Stochastic Methods in Finance.

\(^{14}\) You may not select both STAT0035: Project and STAT0036: Project. A list of available projects is posted on the DOSSSH page.
You must select at least 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0019</td>
<td>Quantitative Economics and Econometrics(^\text{15})</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>ECON0027</td>
<td>Game Theory</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0048</td>
<td>Economics of Finance</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0052</td>
<td>Environmental Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0055</td>
<td>Economics of Science(^\text{15})</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0114</td>
<td>Computational Methods for Economists</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0039</td>
<td>Corporate Financial Strategy(^\text{16})</td>
<td>6</td>
<td>15</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

**Elective Modules**

You may select up to 30 credits from a wide range of undergraduate modules, e.g. *Economics, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies*. You may not select a Level 4 Mathematics or Statistical Science module, or both STAT0013 and MATH0031 Financial Mathematics.

**BSc Statistics and Management for Business (SAMB)**

**Aims**

This programme provides a thorough and intellectually challenging training in statistics together with modules in the broad area of business studies. It aims to provide a combination of management and quantitative skills useful for a career in business, management, commerce or industry. As a graduate of this programme, you should be able to proceed directly to a post as a statistician in industry, commerce or public organisations, or by profiting from the general numeracy and reasoning skills acquired during the programme, to take up trainee positions in accountancy, insurance or management. The programme is also designed to provide you with a preparation for postgraduate study in statistics or operational research.

**Objectives**

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- At least one major statistical computer package.
- Basic deterministic and stochastic methods in operational research.
- Mathematical methods associated with the above areas.
- Theoretical management concepts and their practical application.

On successful completion of this programme you will be able to do the following.

- Explain the concepts and properties of discrete and continuous random variables, common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.
- Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.

---

\(^{15}\) You may only select this module if you took STAT0001: Economics 2 (Combined Studies) in year 2.

\(^{16}\) You may only select this module if you took MSIN0059: Managerial Accounting for Decision Making in year 2.
• Explain the ideas of Markov chains, Markov processes (discrete states only) and renewal processes, and use them in simple applications, including queues and reliability.

• Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.

• Select and apply appropriate statistical methods, and interpret the results.

• Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.

• Identify and discuss the impact of cultural, political, social, economic and technological issues on organisations.

• Present arguments and views which demonstrate understanding of the realities of organisation life.

**Curriculum**

**Year 1**

*Compulsory Modules*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0003</td>
<td>Communication and Behaviour in Organisations</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0006</td>
<td>Business Intelligence</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0048</td>
<td>Understanding Management</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

**Year 2**

*Compulsory Modules*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0047</td>
<td>Advanced Linear Algebra</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0004</td>
<td>Accounting for Business</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0049</td>
<td>Business in a Competitive Environment</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0005</td>
<td>Probability &amp; Inference</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0006</td>
<td>Linear Models and the Analysis of Variance</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

*Optional Modules*

You must select at least 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSIN0051</td>
<td>Business in the Digital Age</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0052</td>
<td>Law for Managers</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0053</td>
<td>Mastering Entrepreneurship</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0059</td>
<td>Managerial Accounting for Decision Making</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0144</td>
<td>Entrepreneurship: Theory and Practice</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

---

17 MSIN0059: Managerial Accounting for Decision Making is a prerequisite for the third year optional module MSIN0039: Corporate Financial Strategy.
You may select up to 30 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability¹⁸</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

*Elective Modules*

You may select up to 15 credits from a wide range of undergraduate modules, e.g. *Economics, Languages, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies*. You may not select a Level 4 Mathematics or Statistical Science module.

*Year 3*

*Compulsory Modules*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSIN0147</td>
<td>Strategic Project Management</td>
<td>6</td>
<td>15</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

*Optional Modules*

When choosing your optional and elective modules, please bear in mind that you must have selected a maximum of 150 credits at Level 4 and a minimum of 90 credits at Level 6 over your entire programme in order to be considered for the BSc Statistics and Management for Business qualification at the end of year 3.

You must select at least 30 credits and at least two modules from the following, including at least 15 credits at Level 6. You must select at least 45 credits of Statistical Science options in total across years 2 and 3.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0008</td>
<td>Statistical Inference</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0009</td>
<td>Stochastic Systems¹⁸</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0010</td>
<td>Forecasting</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0011</td>
<td>Decision and Risk</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0013</td>
<td>Stochastic Methods in Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0014</td>
<td>Medical Statistics 1</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0015</td>
<td>Medical Statistics 2¹⁹</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0017</td>
<td>Selected Topics in Statistics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0018</td>
<td>Stochastic Methods in Finance II²⁰</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0019</td>
<td>Bayesian Methods in Health Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0020</td>
<td>Quantitative Modelling of Operational Risk and Insurance Analytics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimization Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0035</td>
<td>Project²¹</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0036</td>
<td>Project²¹</td>
<td>6</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

¹⁸ STAT0007 is a prerequisite for third year module STAT0009: Stochastic Systems.

¹⁹ You may only select this module in combination with STAT0014: Medical Statistics 1.

²⁰ You may only select this module in combination with STAT0013: Stochastic Methods in Finance.

²¹ You may only select one project module in year 3, either STAT0035: Project, STAT0036: Project, or MSIN0153: Extended Project. A list of available Statistical Science projects is posted on the DOSSSH page.
You must select at least 30 credits from the following, and at least 60 credits of Management options in total across years 2 and 3:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0027</td>
<td>Game Theory</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0029</td>
<td>Digital Conversations and Marketing</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0039</td>
<td>Corporate Financial Strategy(^{22})</td>
<td>6</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0051</td>
<td>Business in the Digital Age</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0052</td>
<td>Law for Managers</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0053</td>
<td>Mastering Entrepreneurship</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0055</td>
<td>International Strategy</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0057</td>
<td>Strategic Human Resource Management</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0059</td>
<td>Managerial Accounting for Decision Making</td>
<td>5</td>
<td>15</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MSIN0060</td>
<td>Global Entrepreneurship</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0061</td>
<td>Global Marketing Strategy</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>MSIN0146</td>
<td>Financial Management</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MSIN0153</td>
<td>Extended Project(^{21})</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MSIN0212</td>
<td>The Ethics of Artificial Intelligence</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

Subject to the same credit requirements, you may substitute Management modules listed above with other modules offered by the School of Management.

**Elective Modules**

You may select up to 45 credits from a wide range of undergraduate modules, e.g. Economics, Languages, Mathematics, Psychology & Language Sciences, Science & Technology Studies. You may not select a Level 4 Mathematics or Statistical Science module, or both STAT0013: Stochastic Methods in Finance 1 and MATH0031: Financial Mathematics.

**BSc (Econ) Economics and Statistics (Econ/Stats)**

**Aims**

This programme combines an in-depth study of economics and econometrics with a solid grounding in mathematical and statistical methods. It aims to provide students of high mathematical ability with skills useful for a career in finance, business or industry. As a graduate of the programme, you should be able to proceed directly to a post as an economist or statistician, or by profiting from the general numeracy and transferable skills acquired during the programme, to take up a trainee position in accountancy, insurance or management. The programme is also designed to provide you with a preparation for postgraduate study in economics, statistics and related fields.

**Objectives**

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.
- Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
- At least one major statistical computer package.
- Mathematical methods associated with the above areas.
- Core elements of macroeconomics, microeconomics and quantitative empirical economics.

\(^{22}\) You may only select this module if you took MSIN0059: Managerial Accounting for Decision Making in year 2.
• One or more specialised areas of economics, for example, financial economics, industrial relations, international trade and economic applications of game theory.

On successful completion of this programme you will be able to do the following.

• Explain the concepts and properties of discrete and continuous random variables and common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.

• Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.

• Explain, and apply to simple situations, basic ideas in applied probability such as Markov chains and Markov processes (discrete states only).

• Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.

• Select and apply appropriate statistical methods, and interpret the results.

• Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.

• Understand the central ideas, concepts and methods of modern economics and apply these core concepts to one or more specialised areas of economics.

• Approach economic and more general quantitative problems in a methodical and structured manner, bringing to bear skills of conceptualisation, problem solving, analysis and communication.

• Explain and evaluate the role of economic evidence in policy-making processes and individual and corporate decision-making.

**Curriculum**

**Year 1**

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH0002</td>
<td>Economics I (Combined Studies)</td>
<td>4</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MATH0045</td>
<td>Calculus and Linear Algebra</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>MATH0046</td>
<td>Calculus in Several Dimensions</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0002</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0003</td>
<td>Further Probability and Statistics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0004</td>
<td>Introduction to Practical Statistics</td>
<td>4</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

**Optional Modules**

You must select exactly 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0004</td>
<td>Applied Economics</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0007</td>
<td>The World Economy</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

Students who have not taken Economics A-level, or equivalent, should consider taking ECON0007: The World Economy, as this provides an introduction to basic economic concepts and methods. Students who have taken Economics A-level typically choose ECON0004: Applied Economics. ECON0004 is among the named prerequisites for the compulsory second year module ECON0019: Quantitative Economics and Econometrics, although students will take during their first year modules judged to be equivalent. If students
are unsure about which option to take they should ask about this at the Economics induction meeting.

**Year 2**

*Compulsory Modules*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0019</td>
<td>Quantitative Economics and Econometrics</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>MATH0047</td>
<td>Advanced Linear Algebra</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0001</td>
<td>Economics 2 (Combined Studies)</td>
<td>5</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0005</td>
<td>Probability &amp; Inference</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0006</td>
<td>Linear Models and the Analysis of Variance</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

*Optional Modules*

You must select exactly 15 credits from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

**Year 3**

*Optional Modules*

When choosing your optional and elective modules, please bear in mind that you must have selected a maximum of 150 credits at Level 4 and a minimum of 90 credits at Level 6 over your entire programme in order to be considered for the BSc(Econ) Economics and Statistics qualification at the end of year 3.

You must select at least 30 credits and at least two modules from the following, including at least 15 credits at Level 6.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT0007</td>
<td>Introduction to Applied Probability</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0008</td>
<td>Statistical Inference</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0009</td>
<td>Stochastic Systems</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0010</td>
<td>Forecasting</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0011</td>
<td>Decision and Risk</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0013</td>
<td>Stochastic Methods in Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0014</td>
<td>Medical Statistics 1</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0015</td>
<td>Medical Statistics 2</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0017</td>
<td>Selected Topics in Statistics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0018</td>
<td>Stochastic Methods in Finance II</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0019</td>
<td>Bayesian Methods in Health Economics</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0020</td>
<td>Quantitative Modelling of Operational Risk and</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Insurance Analytics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT0023</td>
<td>Computing for Practical Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0024</td>
<td>Social Statistics</td>
<td>5</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>STAT0025</td>
<td>Optimization Algorithms in Operational Research</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>STAT0035</td>
<td>Project</td>
<td>6</td>
<td>30</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>STAT0036</td>
<td>Project</td>
<td>6</td>
<td>15</td>
<td>1 &amp; 2</td>
</tr>
</tbody>
</table>

---

23 STAT0007 is a prerequisite for third year module STAT0009: Stochastic Systems.

24 You may only select this module in combination with STAT0014: Medical Statistics 1.

25 You may only select this module in combination with STAT0013: Stochastic Methods in Finance.

26 You may not select both STAT0035: Project and STAT0036: Project. A list of available projects is posted on the DOSSSH page.
You must select at least 45 credits from the following, including at least 15 credits from the first list.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0001</td>
<td>Economics of Financial Markets</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0021</td>
<td>Microeconometrics</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0022</td>
<td>Econometrics for Macroeconomics and Finance</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0023</td>
<td>International Trade</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0027</td>
<td>Game Theory</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0029</td>
<td>Economics of information</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>ECON0030</td>
<td>Issues in Economic Development</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>ECON0113</td>
<td>Advanced Economics of Finance(^{27,28})</td>
<td>6</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

Subject to the same credit requirements, you may substitute Economics modules listed above with other modules offered by the Department of Economics. Your selection must include at least one module that is classified by the Department of Economics as being suitable for third years only.

*Elective Modules*

You may select up to 45 credits from a wide range of undergraduate module options, e.g. Languages, Management, Mathematics, Psychology & Language Sciences, Science & Technology Studies. You may not select a Level 4 Mathematics or Statistical Science module, or both STAT0013: Stochastic Methods in Finance 1 and MATH0031: Financial Mathematics.

**MSci Statistical Science (International Programme)**

**Aims**

This programme provides a broad, thorough and intellectually challenging training in the theory and practice of statistical science, together with experience of education in a different cultural and / or linguistic setting, which will broaden your horizons and prepare you for a variety of careers that have a special emphasis on international expertise. As a graduate of the programme, you should be able to proceed directly to a post as a statistician in industry, commerce or the civil service, or by profiting from the general numeracy and reasoning skills acquired during the programme, to take up a trainee position in accountancy, insurance or management. The programme is also designed to provide you with a preparation for postgraduate study in statistics.

**Objectives**

The programme provides opportunities for you to develop and demonstrate knowledge and understanding in the following areas.

- Fundamental ideas of probability theory and applied probability.

\(^{27}\) This module is expected to be challenging for Econ/Stats students and ECON0048: Economics of Finance (Level 5) from the below list may be a more accessible alternative.

\(^{28}\) You may not select both ECON0048: Economics of Finance and ECON0113: Advanced Economics of Finance.
• Appropriate methods of statistical inference, in a variety of standard situations and over a range of applied areas.
• At least one major statistical computer package.
• Deepened / advanced understanding of statistical theory and its applications in a variety of areas.
• Mathematical methods associated with the above areas.

On successful completion of this programme, you will be able to do the following.
• Explain the concepts and properties of discrete and continuous random variables, common probability distributions (both univariate and multivariate), and carry out basic calculations associated with these.
• Summarise the main features of a set of data, and explain and use basic methods of statistical estimation and significance testing in a variety of standard situations; explain and use basic concepts in the theory of statistical inference.
• Explain, and apply to simple situations, basic ideas in applied probability such as Markov chains and Markov processes (discrete states only).
• Recognise the structure of the data in a variety of standard situations and define the problem to be solved in statistical terms.
• Select and apply appropriate statistical methods, and interpret the results.
• Carry out a critical evaluation of an analytical method, recognising both its strengths and its limitations.
• Take different perspectives.
• Be aware of different possible approaches to problems.
• Demonstrate and exercise independence of mind and thought.

Curriculum

Students may be accepted onto the International Programme from year 1 with the intention of following the first two years of either the Stats, SEF or SEL BSc programmes (but not Econ/Stats or SAMB). Alternatively, students starting on one of these programmes may be allowed to transfer to the International Programme after their first year. The Department will only support a limited number of students on the International Programme. Where more students seek to follow the programme than there are opportunities available, the candidates will be selected by the Study Abroad Tutor in conjunction with the Departmental Tutor, based on overall profile of academic performance, enthusiasm and contribution to the Department.

Students who wish to study in a language other than English must be able to demonstrate linguistic competence through qualifications and/or following UCL language modules. The Department may ask the UCL Centre for Languages & International Education to assess students seeking to study abroad.

Years 1 and 2 are the same as for the corresponding BSc programme selected at the start of year 1 except that, if required, a student should take up to 30 credits of language modules in the first two years. These language modules should be taken instead of options named in the programme structure of the selected programme; students will be required to take all of the compulsory first and second year modules of the selected programme.

Year 3 will be the year abroad. Students studying abroad must follow a programme that is to the fullest extent possible agreed in advance with the Study Abroad Tutor. The programme must
• be of equivalent depth and quality to the third year of one of our BSc programmes;
• be substantially composed of modules in statistics or closely related allied disciplines such as mathematics, econometrics, operations research, computer science;
• be of equal workload to that of the UCL third year of one of our BSc programmes, that is, using accepted equivalence measures, be of 120 credits;
• be formally assessed by the host institution and the results of the assessment independently reported to the Study Abroad Tutor;
• include taught modules / credits, i.e. not consist solely of project work;
• be formally documented by the student in an up to date written study plan, signed by the Study Abroad Tutor and kept by the Departmental Tutor.

Due to the variety of international marking systems, year 3 examination and assessment results will be converted into UCL marks on a case-by-case basis based on the grade definitions given in the “Feedback on Student's Work” section on page 16.

In year 4, the choice of modules should complement the ones taken in the year abroad. All 120 credits must be selected at Level 7, at least 90 credits of which should be chosen from amongst the modules offered by the Department of Statistical Science. The module STAT0008: Statistical Inference is compulsory unless the student has already covered this material in equivalent depth during the year abroad. Similarly, a student must also undertake statistical project work amounting to the equivalent of at least 30 credits, either as a compulsory 30 credit Level 7 statistical project in the final year, or by registering for at least a 15 credit project module in each of years 3 and 4 and undertaking the work over two years.
Optional modules must be agreed by the Study Abroad and Departmental Tutors, in order to avoid overlap caused by attending an overseas institution.

BSc/MSci Mathematics and Statistical Science

The MASS degree programme specifications are available from the Department of Mathematics.

EXTENUATING CIRCUMSTANCES AND REASONABLE ADJUSTMENTS

Students with disabilities and long-term conditions

UCL will make Reasonable Adjustments to learning, teaching and assessment to ensure that students with a disability are not put at a disadvantage. UCL also provides Reasonable Adjustments for students who might not consider themselves to have a ‘disability’ but who nevertheless would benefit from additional support due to an ongoing medical or mental health condition. It is the responsibility of the student to request Reasonable Adjustments, and students are encouraged to make a request as early as possible.

Further information:
• Support for disabled students
• Mental health and wellbeing support

Pregnancy and maternity, paternity, parental and adoption leave

UCL can also make Reasonable Adjustments for students who are pregnant or who need to go on Maternity, Paternity, Parental Leave and Adoption Leave. Students do not have to apply for a Summary of Reasonable Adjustments but should instead contact UCL Student Support and Wellbeing to find out about the support available.
Further information:

- Support for pregnant students
- Support for student parents

Religious observance

Students may need Reasonable Adjustments to help them observe their faith, particularly where classes or assessments might fall on important religious dates. Students do not have to apply for a Summary of Reasonable Adjustments but should instead contact the UCL Chaplain for advice and support. Further information is also available in UCL’s Religion and Belief Policy.

Further information:

- Religion and faith
- Religion and Belief Equity Policy

Examination adjustments

Examination Adjustments are adjustments to written examinations for students with a disability, medical or mental health condition, such as extra time, rest breaks or specialist equipment.

Students should contact the Disability, Mental Health and Wellbeing team who can help them to complete an application and advise them on gathering the required documentary evidence. Applications need to be received by the Disability, Mental Health and Wellbeing team three weeks before the examination period in question.

After this deadline students will need to apply to defer their assessment to the next opportunity (normally the Late Summer Assessment period) if they require mitigation, under the Extenuating Circumstances regulations (see next section).

Further information:

- Exam adjustments

Illness and other extenuating circumstances

If a student’s assessments are disrupted by events which are unexpected, significantly disruptive and beyond the student’s control, such as serious illness or bereavement, they can apply for ‘Extenuating Circumstances’.

Students are responsible for letting UCL know about any event that might affect their performance in assessments (exams or assignments) at the time that it takes place. Applications need to be submitted within 1 week. Meeting this deadline is important: we can only consider late applications if ongoing circumstances mean that it was genuinely impossible for the student to submit on time.

Students should not wait for supporting evidence to become available before submitting their EC claim. If a student is unable to obtain the necessary evidence within the deadlines they should still submit their form on time and indicate that their evidence is to follow.
How to apply for extenuating circumstances

The Students’ website includes the latest information about applying for Extenuating Circumstances. The Academic Manual includes the full Extenuating Circumstances policy, including examples of what would normally be considered and any special arrangements that have been put in place during the Covid-19 pandemic.

Longer term conditions

The Extenuating Circumstances regulations are designed to cover unexpected emergencies; they are not always the best way to help students who might have a longer-term medical or mental health condition, disability or learning difficulty. Although there may be times when it is necessary for such students to use the Extenuating Circumstances regulations, students should make sure they take advantage of all the other support mechanisms provided by UCL such as:

- Reasonable Adjustments
- Examination Adjustments
- Interruption of Study
- Support for disabled students
- Mental health and wellbeing support

Support to study policy and fitness to study procedure

Students with physical or mental health concerns are encouraged to make contact with the available support services as early as possible so that UCL can put in place reasonable adjustments to support them throughout their studies. However there may be occasions when a student’s physical or mental health, wellbeing or behaviour is having a detrimental effect on their ability to meet the requirements of their programme, or is impacting on the wellbeing, rights, safety and security of other students and staff. In such cases UCL may need to take action under the Fitness to Study Procedure.

Further Information:

- Support to Study Policy
- Fitness to Study Procedure
- Learning Agreements, Barring, Suspensions and Termination of Study

ASSESSMENT

Please note that this information may be subject to change due to Covid-19 – please check the Students’ webpages for the most up-to-date information.

Components of compulsory assessment

For most modules, you are examined by in-course assessment and final examinations (there are exceptions, however, notably if the module is a project).

In-course assessment

At the beginning of each module, the lecturer will provide details of the method and dates of in-course assessment and the amount of work involved. The assessment dates will also be posted on the module Moodle page. Students should ensure that they have no other commitments on these dates. In-course assessment is a form of examination, and should be treated as such. The proportion it normally contributes towards the overall mark is given for each module in its UCL Module Catalogue entry. For students required to resit
the in-course assessment without further tuition, an alternative form of assessment may be employed for the second attempt.

Each piece of in-course assessment set by the Department of Statistical Science has its own rubric and the instructions given must be followed. In particular, do pay attention to the consequences of missing the deadline set, non-submission and plagiarism; any of these can result in your not passing the module. Teaching staff will set aside extra office hours to discuss assessment-related matters (see page 14); students should respect the lecturers' time by confining queries to these hours.

Some assessments will be in the form of a “take-home” assignment, to be handed in by a set deadline. For such assessments, you will need to complete a declaration affirming that the submitted work is entirely your own (see “Plagiarism and collusion” section on page 46).

Coursework late submission penalties: Planning, time-management and the meeting of deadlines are part of the personal and professional skills expected of all graduates. For this reason, UCL expects students to submit all coursework by the published deadline date and time, after which penalties will be applied. If a student experiences something which prevents them from meeting a deadline that is sudden, unexpected, significantly disruptive and beyond their control, they should submit an Extenuating Circumstances Form (see “Extenuating Circumstances” section on page 42). If the request is accepted, the student may be granted an extension. If the deadline has already passed, the late submission may be condoned i.e. there will be no penalty for submitting late.

Further information:

- **Coursework Deadlines and Late Submissions**

**Word counts:** some assessments (usually involving the production of reports) carry a specified word count. The rubric will include clear instructions about word counts, the inclusion of footnotes, diagrams, images, tables, figures and bibliographies etc. Students are expected to adhere to the requirements for each assessment. Students exceeding these parameters may receive a reduction in marks. The rubric may indicate that the word count excludes appendices. However, this should not be regarded as an invitation to transfer large amounts of surplus text into an appendix and the mark awarded will reflect the standard of judgement shown in the selection of material for inclusion.

Further information:

- **Word Counts**

**Final examinations**

These normally take place during Term 3. Student and Registry Services will contact you with details of your personal examination timetable, normally just before the end of Term 2. Students must ensure that they are aware of the regulations governing examinations, as detailed at the web-links provided below.

Further information:

- **Exams and assessments**
- **Examinations**

Recent past examination papers are available from the UCL Library Services website.

**Overall module mark**

To pass a module at Levels 4, 5 and 6, a final mark of at least 40.00% is required. To pass a Level 7 module, a final mark of at least 50.00% is required. For Statistical Science modules with more than one assessment component, the scheme used for combining the individual marks is given for each module in its UCL Module Catalogue entry.
UCL feedback turnaround policy

Regular feedback is an essential part of every student’s learning. It is UCL policy that all students receive feedback on summative assessments within one calendar month of the submission deadline (excluding the UCL Christmas closure period). This feedback may take the form of written feedback, individual discussions, group discussions, marker’s answers, model answers or other solutions (although students should note that UCL is generally unable to return examination scripts or comments on the same). Students writing dissertations or research projects should also expect to receive feedback on a draft on at least one occasion.

If, for whatever reason, a department/division cannot ensure that the one calendar month deadline is met then they will tell students when the feedback will be provided - it is expected that the extra time needed should not exceed one week. Where feedback is not provided within the timescale, students should bring the matter to the attention of their Departmental Tutor or Head of Department.

Further information:
- Assessment Feedback

Academic integrity

High academic standards are fundamental to ensuring continued trust and confidence in UCL’s world-leading research and teaching, as well as the individuals who work and study at UCL. UCL takes academic integrity very seriously, and expects students to familiarise themselves with UCL’s referencing and citation requirements. A good starting point is the UCL Library Guide to References, Citations and Avoiding Plagiarism. Students should also ensure that they are familiar with the specific referencing requirements of their discipline, as these may vary.

Candidates for written examinations should also familiarise themselves with the requirements set out in the UCL Examination Guide for Candidates, which is published annually on the Examinations and Awards website. It is also very important that students are aware of what items they are permitted to bring into the Examination Halls, so they can ensure they do not unintentionally breach the examination rules.

UCL has a zero tolerance approach to the use of essay mills and contract cheating, as they go against every principle that UCL stands for. These types of service disadvantage honest students and devalue standards in our universities.

The vast majority of students at UCL will maintain their Academic Integrity throughout their studies, but it is important to be aware that UCL may consider breaches to your Academic Integrity as an instance of Academic Misconduct. When Academic Misconduct occurs there can potentially be penalties imposed, and it is important to note that repeated breaches will be taken very seriously and could result in exclusion from UCL (see Academic Manual, Chapter 6, Section 9.3, web-link provided below). For students who are unsure of what may be considered as Academic Misconduct, the procedures in Chapter 6 of the Academic Manual define all such behaviour and how this is taken forwards. UCL also has online tools available to help students identify what behaviours may be considered as Academic Misconduct.

Further information:
- Academic Integrity
- Student Academic Misconduct Procedure
Plagiarism and collusion

Plagiarism means attempting to pass off someone else's work as your own, while collusion means passing off joint work as your own unaided effort. Both are unacceptable, particularly in material submitted for examination purposes including exercises done in your own time for in-course assessment. Plagiarism and collusion are regarded by the College as academic misconduct (i.e. cheating) and are taken extremely seriously. UCL uses a sophisticated detection system (Turnitin®) to scan work for evidence of plagiarism and collusion, and the Department reserves the right to use this for assessed coursework. This system gives access to billions of sources worldwide, including websites and journals, as well as other work submitted to the Department, UCL and other universities. It is therefore able to detect similarities between scripts that indicate unacceptable levels of collusion, as well as material taken from other sources without attribution.

If plagiarism or collusion are suspected, on the basis either of the Turnitin® software or other evidence, it can be dealt with informally only in the case of first offences. All other cases must be dealt with formally, which involves adjudication by the module organiser, Exam Board Chair, a Departmental Panel and/or a College Academic Misconduct Panel, depending on the extent of the alleged misconduct (see page 45).

What isn't acceptable?

Students sometimes find it difficult to know what counts as plagiarism or collusion. The following list is not exhaustive, but gives some indication of what to avoid. It is based on guidelines developed by Nick Hayes of the UCL Pharmacology Department. You may not:

- Create a piece of work by cutting and pasting material, e.g. texts or figures, from other sources (including websites, books, lecture notes and other students' work).
- Use someone else's work as your own. This includes, but is not limited to:
  - Making notes while discussing an assessment with a friend, and subsequently using these as the basis for all or part of your submission.
  - Telephoning another student to discuss how best to carry out a particular piece of analysis.
  - Employing a professional ghostwriting firm or anyone else to produce work for you.
- Use somebody else's ideas in your work without citing them.
- Ask a lecturer in the Department for help with assessed work, unless you make it clear to them that the work is assessed.
- Help another student with their assessed work. If you do this, you will be deemed to be guilty of an examination irregularity.

What is acceptable?

The following practices do not constitute plagiarism / collusion:

- Quoting from other people's work, with the source (e.g. book, lecture notes, website) clearly identified and the quotation enclosed in quotation marks.
- Summarising or paraphrasing other people's work, providing they are acknowledged as the source of the ideas (again, usually this will be via a reference to the book, journal or website from which the information was obtained).
- Asking the module lecturer for help with difficult material, providing it is clear that the question is in connection with the assessment. The lecturer will be able to judge for him or herself what is an appropriate level of assistance.
Some examples

Unfortunately, each year there are some students in the Department of Statistical Science who submit work that contravenes the regulations. The consequences can be severe.

Example 1: Final-year student A had a lot of coursework deadlines in the same week as an important job interview. One of the coursework deadlines was for an extended piece of data analysis, set two weeks previously. Because of his other commitments, student A did not start this piece of coursework until shortly before the deadline, at which point he discovered that he did not have enough time to do it. He asked student B for help. The result was that both students submitted essentially identical work using exactly the same computer output. A Departmental panel was convened to investigate the matter. The panel suggested that student B had passed electronic material (computer output and graphics files) to student A, who had pasted this material straight into his own submission. Although student A admitted asking student B for help, both students denied exchanging electronic material. They were, however, unable to explain how the same electronic files came to appear in both submissions. As a result, the allegation was upheld and both students were penalised. Student A was given a mark of zero for the module in question (this meant that he had no possibility of passing it that year), and student B was given a mark of zero for the coursework component.

Example 2: Students C and D both had to submit some computer code for an assessment, which was worth one third of the total mark for a module. There was considerable flexibility in how to go about the assessment. Although the students submitted code that looked very different, closer inspection revealed that they were carrying out the same procedures in more or less the same order, and that the methods they used to carry out these procedures were essentially the same. Further, these procedures and methods were not used by other students in the class. On investigation, it transpired that the students had discussed the assessment over the phone while sitting in front of their computers. This is unacceptable, and as a result the marks of both students for this piece of assessment were halved.

Example 3: The in-course assessment for a particular module was organised as a multiple choice exam taken via Moodle outside of lessons. Each student could attempt the one-hour exam at any time of their choosing within a ten day window, but were clearly advised that they must work alone. After the exams had been graded, it was noticed that students E and F had given identical answers to every question (including incorrect answers). Inspection of the Moodle logs revealed that the students had started and finished their attempts at exactly the same time, using IP addresses that were traced to adjacent PCs in the same computer cluster. Students E and F admitted colluding on the in-course assessment and were both given a mark of zero for that component.

How to avoid plagiarism and collusion

If you are found to have committed an offence of plagiarism or collusion, it makes no difference whether or not you intended to do so. Ignorance is no excuse. To avoid committing an offence, a useful rule of thumb is: if in doubt, don't do it. Make sure that any work you submit is your own unaided effort. More specific guidance is as follows:

• Plan your work schedule carefully, to allow enough time to complete each piece of assessment.

• If you have genuine problems in meeting a deadline, don't take the easy way out and borrow a friend's work. Discuss your difficulty with the module lecturer in the first instance.

• If you are stuck with an assessment, don't ask another student for help. Discuss it with the module lecturer.
If another student asks you for help with an assessment, or asks to see your work, suggest that they approach the module lecturer instead. Remember: if somebody else copies or uses your work, you will be penalised as well, even if you didn’t expect them to use your work in this way.

**Examination marks**

*First and second marking*

All work that is submitted for summative assessment is marked by a UCL Internal Examiner or Assistant Internal Examiner. All UCL programmes also include second-marking and internal moderation processes to ensure that marking is consistent and fair. Second-marking can take a number of different forms depending on the type of assessment, but the overall aim is to ensure that marking is as accurate as possible. Internal moderation also helps UCL to ensure that marking is equitable across different modules, pathways, options and electives.

**Moderation**

The “raw” mark for an assessment may not be the final mark that is awarded. An Internal Examiner, usually the module organiser, will carefully consider grade boundaries by examining a sufficient range of scripts and using the grade descriptors summarised on page 16. These boundaries determine the raw mark required to achieve each grade. Once the grade boundaries have been set, the examiner will calculate the associated percentage mark on the UCL scale from 0.00% to 100.00%.

For example, for a particular assessment marked out of 100, the examiner may decide that submissions scoring at least 58/100 meet the criteria for a grade B (equivalent to a percentage mark of 60.00% on the UCL scale), while those scoring at least 71/100 meet the criteria for a grade A (equivalent to a percentage mark of 70.00% on the UCL scale). Therefore a score of 58/100 is converted to 60.00%, a score of 71/100 is converted to 70.00%, while a score strictly between 58 and 71 is converted to the relevant percentage mark using linear transformation.

It should be noted that the examiner may decide that such conversions are not necessary, e.g. a score of 60/100 (and no less) does indeed match the descriptor for a grade B so is converted to 60.00% on the UCL percentage scale, or that grade boundaries may be above or below what is expected as in the example above.

All examiners are required to justify their choice of grade boundaries formally, which the second examiner must agree. The External Examiner (see next section) also reviews this justification and can request changes if necessary.

**External examining at UCL**

External Examiners are senior academics or practitioners from other universities who help UCL to monitor the quality of the education we provide to our students. In particular, External Examiners scrutinise the assessment processes on each programme, helping UCL to ensure that all students have been treated fairly, that academic standards have been upheld and that the qualifications awarded are comparable with similar degrees at other UK universities.

Each External Examiner submits an online annual report. Faculties and departments are required to reflect on any recommendations and address any issues raised in a formal response. The report and response are discussed with Student Reps at the Staff-Student Consultative Committee, and are scrutinised by faculty, department and institution-level committees. Students can access their External Examiner’s report and departmental response via the “My Studies” page through their Portico account either through ‘Module Assessment’ or ‘Summary of Results and Awards’ or by contacting their Programme
Administrator in the first instance. On the same “My Studies” Portico page, students can also access UCL wide External Examiners reports for the last three years. For central queries relating to External Examining, please contact Student and Registry Services at examiners@ucl.ac.uk.

**Boards of examiners**

Marks are finalised at meetings of examiners in the departments offering the modules. When finalising marks, examiners in the Department of Statistical Science compare results between modules of the same difficulty level in order to ensure comparability of standards. Recommended degree classifications for final year students registered on the Data Science, Statistics, SEF, SEL and MSci International programmes are made at the Departmental Examiners Meeting. Recommended degree classifications for the Econ/Stats, SAMB and MASS degrees are made by separate examination boards for these joint programmes comprised of academics from both major fields of study.

**Appeals concerning examination results**

Where informal resolution is not possible, candidates may appeal against their examination results under one or more of the following conditions:

- Either the examination and/or classification process was not conducted in accordance with the relevant regulations/procedures.
- The examiners could not reasonably be made formally aware of special circumstances (e.g. illness) notified by the candidate which significantly affected his/her performance in the examination. For a candidate to appeal on these grounds, it is necessary to demonstrate that they could not reasonably have submitted the appropriate claim for Extenuating Circumstances by the required deadline (see page 42).
- There has been an arithmetical or transcription error in the compilation of the marks and/or the result.
- There is substantive evidence that one or more of the examiners can be shown to have been biased or prejudiced against the candidate in one or more specific examinations.

Any such appeal should be pursued via the Student Complaints Procedure (see page 61). Note that appeals will not be considered except under one or more of the conditions above. The Department of Statistical Science would therefore like to reassure all students that all staff in the Department take the assessment process extremely seriously. The marking process described above is designed to ensure that papers are marked fairly and accurately, with all marks agreed by at least three examiners (two internal and one external) and any difficulties discussed by the entire Board of Examiners.

**Information about the consequences of failure**

Students are permitted a maximum of two attempts at any given assessment. If a student fails an assessment at the first attempt they might:

- Be eligible for Condonement
- Need to Resit or Repeat the assessment
- Apply for a Deferral or other support under the Extenuating Circumstances procedures (see page 41)

**Condonement**

Condonement allows a student to progress from one year to the next and/or to be awarded a qualification where they are carrying a small amount of failure, as long as their overall performance is of a good standard and the requirements of any relevant professional,
statutory or regulatory bodies are met. Students who meet the condonement criteria will not be reassessed. Condonement can be applied only to module marks falling within a certain range, and students will need to meet defined criteria to be eligible for condonement. For undergraduate programmes, the condonable range is 1.00-39.99% for modules at Levels 4, 5 and 6 and 1.00-49.99% for modules at Level 7.

Some modules may be ‘non-condonable’ i.e. students must pass them. A student’s eligibility for condonement in any given module is determined by the programme on which they are enrolled. For all seven of the degree programmes listed at the top of page 2, the modules: STAT0003 Further Probability and Statistics, and STAT0005 Probability and Inference are both non-condonable. These modules introduce and then develop a formal and mathematical framework for the study of probability and statistics that underpins almost all of Statistical Science, including most of the advanced topics studied in years 2 and 3.

Further information

- **Condonement**
- **Guide to Undergraduate Condonement**

A student will be awarded a mark of 0.00% for an assessment component and will be deemed to have made an attempt where they:

- Are absent from an examination or other assessment event without prior permission.
- Attempt so little of a paper or task that it cannot be assessed.
- Do not submit coursework.

To avoid being awarded a mark below the condonable range for a particular module through absence from assessment, students must obtain authorisation for the absence by submitting a request for extenuating circumstances (see page 42).

**Reassessment**

Depending on the amount of failure, reassessment may take the form of either a resit, which usually takes place in the late summer, or a repeat in the following academic session. The marks for modules successfully completed at the second attempt will be capped at the pass mark – 40.00% for modules at Levels 4, 5 and 6 and 50.00% for modules at Level 7.

Further information:

- **Consequences of Failure**

**Deferred assessment**

If an assessment has been affected by Extenuating Circumstances students may be offered a deferral i.e. a ‘new first attempt’ or a ‘new second attempt’. If the student successfully completes a deferral of their first attempt, their module marks will not be capped. If the student successfully completes a deferral of their second attempt (i.e. they have Extenuating Circumstances on a resit or repeat), their module marks will be capped at the pass mark (i.e. the existing cap will not be removed).

Further information:

- **Deferred Assessment**

**PROGRESSION, AWARD AND CLASSIFICATION**

UCL’s progression and award requirements define how many credits and modules students need to pass to progress from one year of study to the next and to be awarded a UCL qualification.
Progression and award requirements

In order to progress from one year to the next, or to be awarded a Bachelors with Honours or an Integrated Masters with Honours, a student should pass 120 credits in each year of study. A student who does not pass 120 credits in a year of study will nonetheless be considered to have met the progression and award requirements if they satisfy all of the following condonement criteria in that year of study:

- Pass all non-condonable modules (STAT0003\(^\text{29}\) in year 1; STAT0005 in year 2),
- Attain marks in the condonable range in no more than 30 credits,
- Pass the remaining credits,
- Have attained marks in the condonable range in no more than 60 credits up to and including the current year of study,
- Achieve a credit-weighted mean of at least 40.00% (50.00% in the Masters year) across 120 credits.

Students unable to meet these requirements having exhausted all reassessment attempts may be eligible for an interim qualification, i.e. a Certificate of Higher Education, Diploma of Higher Education or Ordinary Degree. Any such award will be unclassified.

Further information:

- Progression and Award
- Interim Qualifications

MSci degree

In addition to the above criteria, the following progression rules apply to the MSci International programme:

- **Year 2 to Year 3**: a student will automatically progress who has an overall weighted mark (i.e. weighted mean of years 1 and 2) of 59.50% or greater, AND has a year 2 credit-weighted mean of 59.50% or greater.

- **Year 3 to Year 4**: a student will automatically progress who has an overall weighted mark (i.e. weighted mean of years 1, 2 and 3) of 59.50% or greater, AND has a year 3 credit-weighted mean of 59.50% or greater.

- If a student does not satisfy the 59.50% requirement, but has weighted means of 49.50% or greater, continuance on the MSci programme may be permitted at the discretion of the Programme Board of Examiners.

The relative weightings used in the calculation of the overall weighted mark are the same as those specified in the classification scheme (see below). A student who fails to progress from year 3 to 4 must transfer to the BSc programme followed in the first two years (there is no opportunity for reassessment of the year abroad). A student who fails to progress from year 2 to 3 cannot go abroad and must transfer to the corresponding BSc programme.

Classification scheme

Students who have successfully completed the progression and award requirements will be awarded a classification. A final weighted mark will be calculated from the individual module marks as follows, rounded to two decimal places:

\(^{29}\) Students who completed year 1 during the 2019/20 academic session are considered to have passed STAT0003 under UCL’s Covid-19 No Detriment Policy.
The following rules will then be used to determine the classification:

**First Class Honours (1)**
- A final weighted mark of at least 69.50%  
  OR  
- A final weighted mark of at least 68.50%, AND  
  - Module marks of at least 70.00% in at least 50% of the final year credits

**Second Class Honours Upper Division (2.1)**
- A final weighted mark of at least 59.50%  
  OR  
- A final weighted mark of at least 58.50%, AND  
  - Module marks of at least 60.00% in at least 50% of the final year credits

**Second Class Honours Lower Division (2.2)**
- A final weighted mark of at least 49.50%  
  OR  
- A final weighted mark of at least 48.50%, AND  
  - Module marks of at least 50.00% in at least 50% of the final year credits

**Third Class Honours (3)**
- A final weighted mark of at least 40.00%

Specific regulations for each individual programme are published in the Portico Progression and Award Rules Tool. Students will be notified when their regulations are available. To find the Tool, students should click on the 'My Programme' box on the 'My Studies' page in Portico. The 'Progression and Award Rules' link is below the programme information.

The rules published here apply to students who have followed a standard progression. If you started your programme earlier than 2019/20 and subsequently interrupted or repeated some of your studies, your classification may be calculated differently. Please contact your Programme Administrator for further details.

Further information:
- [Classification](#)

**Prizes and medals**

**Departmental**

The following sessional prizes may be awarded to students on the Data Science, Statistics, SEF, SEL, SAMB, Econ/Stats and MSci International programmes:
- Two *first year sessional prizes* for outstanding performance in the first year;
- Two *second year sessional prizes* for outstanding performance in the second year;
- One *final year sessional prize* for outstanding performance in the final year;
- Up to five *undergraduate project prizes*: for outstanding performance in STAT0035/36.

---

30 For students who completed year 1 during the 2019/20 academic session, that year will be weighted at 0 in the classification calculation under [UCL’s Covid-19 No Detriment Policy](#).
**Faculty**

The Department may nominate outstanding students for consideration by the MAPS Faculty for the following awards:

- *Kathleen Lonsdale Medal:* a final year student
- *Dean's Commendation:* final year students
- *UCL Scholarships for Excellence:* one first year and one second year student

**Other**

- *Royal Statistical Society Prize:* a final year student on an RSS accredited programme (currently these are Statistics, SEF, SEL, Econ/Stats, the MSci International programme and MASS).

**CHANGES TO REGISTRATION STATUS**

Students wishing to make changes to their registration status should first discuss their plans with their Personal Tutor or the Departmental Tutor who can explain the options available and help students to make the right decision. Students should also ensure that they read the relevant sections of the UCL Academic Manual before making any requests to change their academic record.

**Data Science, Statistics, SAMB, SEF, SEL and Econ/Stats students:** please consult the Departmental Tutor (this applies for modules in any subject). For Econ/Stats students, there is also a tutor available in the Department of Economics whom you may consult about the Economics modules in the degree programme.

**MSci students:** please consult the Departmental Tutor (this applies for modules in any subject). For organisation of the year abroad, please consult the Study Abroad Tutor.

**MASS students:** please consult the Departmental Tutor in the Department of Mathematics (this applies for modules in any subject). You may also consult the Statistics Tutor to MASS Students about the Statistics modules in the degree programme.

Further information:

- [Changes to your studies](#)

**Changing programme**

If a student wishes to transfer from one UCL degree programme to another, they must make a formal application. The usual deadline for change of degree programme during the academic session is the end of October each year (for students registering in September, with a later date for students registering in January) to be compatible with module selection deadlines, although later transfers may be possible, where the transfer does not affect module selections. Students should log in to their Portico account and complete the online application. Students are strongly advised to discuss their plan with the departments involved before requesting a change of programme on Portico.

Further information:

- [Change your programme or modules](#)
- [Programme Transfers](#)

**Tier 4 students and changing programmes**

Only some Tier 4 students are permitted to change their programme at UCL without first completing their previous programme. There are some circumstances where a Tier 4 student
is permitted to change programme, however please be aware that this could affect your current Tier 4 visa and you could be required to apply for a new visa from outside the UK. Changing to a programme at a lower level than your previous/current programme is not permitted under Tier 4 regulations.

If you are thinking of changing programmes at UCL and you hold a Tier 4 visa, please get in touch with the Visa Compliance Team for further information: visacompliance@ucl.ac.uk.

**Interruption of studies**

If a student requires a temporary break from their studies and plans to resume their programme at a future date, they must apply for a formal interruption of study.

Further information:
- [Interrupting or withdrawing from your studies](#)
- [Interruption of Study](#)

**Withdrawing from a programme**

If a student wishes to leave their degree programme prior to completing their final examinations they must apply for a formal withdrawal from their studies. Applications must be made in advance of the effective date of change. Students should log in to their Portico account and complete the online application.

Further information:
- [Interrupting or withdrawing from your studies](#)
- [Withdrawing from a Programme](#)

**Informing the Student Loans Company of changes to student status**

If a student makes a change to their programme or registration status during the course of the academic year, it is important that the Student Loans Company (SLC) is notified. The SLC can then re-assess and update its records. Changes could include a student withdrawing from their academic programme, an interruption in studies or transferring to a new programme. The SLC must also be notified when there is a change in mode of study or when a student has returned from an interruption.

To inform the SLC of a change in your student status, a Change of Circumstance (CoC) form must be completed online by your Faculty. Please contact the Programme Administrator if you require a CoC form to be submitted on your behalf or if you have any related queries.

**STUDENT SUPPORT AND WELLBEING**

**Central wellbeing and support services**

UCL is committed to the wellbeing and safety of its students and tries to give assistance wherever possible to ensure that studying at UCL is a fulfilling, healthy and enjoyable experience. There is a wide range of support services for students - the [Student Support and Wellbeing](#) website provides more information. Students should be aware that, while there are many services on offer, it is their responsibility to seek out support and they need to be proactive in engaging with the available services.

**The Student Enquiries Centre**

The Student Enquiries Centre (SEC) are responding to online enquiries from 9am-6pm Monday-Friday. We are also available to speak via our telephone service.
• Student Enquiries Centre phone number: +44 (0)20 3108 8836.
• Telephone service hours: 10:00 – 16:00 on Mondays, Tuesday, Wednesdays and Fridays; 11:00 – 16:00 on Thursdays.

The Student Enquiries Centre provides front-line administrative services to UCL students and is an excellent source of information about UCL in general and all of the services provided by Student and Registry Services (SRS).

Please note that information on the Student Enquiries Centre opening times may be subject to change due to Covid-19 – please check the link to the Centre below for current information. Students can also direct their queries to UCL’s online enquiries system and self-help centre, askUCL.

Further information:
• askUCL
• Student Enquiries Centre

**Disability, Mental Health and Wellbeing Team**

The Disability, Mental Health and Wellbeing Team in Student Support and Wellbeing (SSW) provide a safe, confidential and non-judgemental space, in which students can discuss any wellbeing, mental health and/or disability concerns that may be affecting their ability to study. This encompasses any personal or emotional challenges students may be experiencing, mental health difficulties such as anxiety or depression and long-term health conditions. The service also supports students with physical and sensory impairments, specific learning difficulties, and autistic spectrum conditions. As well as arranging for adjustments to learning environments, the team loan out specialist equipment. They provide one-to-one tutoring and support for students with specific learning difficulties and mentoring for students with mental health conditions.

Further information:
• Support for disabled students
• Mental health and wellbeing support

**Student Psychological and Counselling Services**

Student Psychological and Counselling Services (SPCS) is dedicated to helping UCL students with personal, emotional and psychological concerns. The SPCS team is diverse and consists of a variety of highly trained and experienced professionals, who offer short-term CBT and psychodynamic support. There are currently two psychiatrists and ten therapists on staff with varying kinds of psychological training and expertise. Students wishing to access counselling through SPCS need to first complete an online registration form that can be found through the link below.

Further information:
• Student Psychological and Counselling Services

**International student support**

The International Student Support team provide specialist support and advice for all non-UK students at UCL. They help international students settle into life in the UK and make the most of their time at UCL and in London. This includes practical guidance on healthcare, banking, transport and safety, as well as information about the International Student Orientation Programme (ISOP).

Further information:
• International Student Orientation Programme (ISOP)
**Study abroad support**

The Study Abroad team provide administrative and welfare support to all undergraduate students undertaking a period abroad as part of their studies, working with colleagues across academic departments in order to advise and guide students from application through to their return to studies at UCL. The team coordinates a diverse portfolio of global student opportunities via different projects: Student Exchanges and Exchange Agreements, the Erasmus Scheme, Study Abroad, Global Experience (Summer Schools, internships, short-term mobility).

Please note that information on Study Abroad may be subject to change due to Covid-19 – please check the website below for current information, and with the department.

Further information:
- [Go abroad](#)

**Accommodation**

UCL Accommodation provides a range of housing options which includes two Halls of Residence (catered), self-catered Student Houses and Intercollegiate Halls (both catered and self-catered) shared with other colleges of the University of London. Each Hall has a designated Warden supported by a number of live-in Student Residence Advisers (SRAs) to provide support for students and to foster a positive environment within the accommodation.

Please note that information on UCL Accommodation may be subject to change due to Covid-19 – please check the website below for current information.

Further information:
- Wardens and Student Residence Advisers (SRAs)

**Financial support**

The UCL Student Funding Office provides a central service aimed at supporting students with money matters. We can assist with scholarship, bursary and loan queries, and help signpost students to sources of funding. We also offer a range of resources and tips on money management. The easiest way to access our information and guidance is online, but for students with more complex circumstances an appointment can be booked with one of our Student Funding Advisers.

Further information:
- Financial support from UCL
- Manage your money

**Transition mentors**

The UCL Transition Programme supports new first-year students at UCL, helping them to settle in quickly and achieve their potential. Each first-year student is assigned a Transition Mentor for their first term. Transition mentors are later-year students within each department who work with small groups of students on a weekly basis to help them settle in to UCL and London as well as focussing on academic issues and topics specific to their degree programme. First-year students meet their Transition Mentor during the first week of term at their department’s ‘Meet your Mentor’ session.

Please note that the 2021 Transition Mentoring Programme will primarily be delivered online. However, depending on COVID-19 restrictions, there may be opportunities for mentors and their groups to undertake some face-to-face activities.
Further information:

- Transition mentors

**Student of concern**

There are many sources of support for students who are having difficulties, but sometimes it is hard to know how to help a student who appears to be struggling, particularly if they seem unwilling or unable to seek the help they need. Anyone concerned about the behaviour of a student, who believes the problem may be related to health and wellbeing issues, is encouraged to complete the online UCL Student of Concern Form. Depending on the concerns raised, Student Support and Wellbeing may respond by offering support or advice to the student or the person who submitted the form, liaise with support services or, if necessary, work with the relevant authorities to ensure the student is safe.

Further information:

- If you are concerned about a student

**Registering with a doctor and out-of-hours support services**

**Registering with a doctor**

Students are strongly encouraged to register with a doctor as soon as possible after they arrive in London so that they can access healthcare quickly if they become ill or injured. When attending a university in the UK students under the age of 25 are also advised to be vaccinated against meningitis (ACWY). The Ridgmount Practice is a National Health Service (NHS) practice providing healthcare for students living within its catchment area (i.e. near the main UCL campus). Students can also choose to register with a practice closer to where they live if they prefer. The Ridgmount Practice also runs a walk-in surgery which any UCL student can attend, even if they are not registered with the practice.

Please note that information on registering with a doctor and NHS service availability may be subject to change due to Covid-19 – please check the websites below for current information.

Further information:

- Register with a doctor
- Ridgmount Practice

**Out-of-hours support and information helpline**

UCL works in partnership with Care First to provide an out-of-hours support, information and counselling helpline. The helpline is free of charge and includes access to information specialists who are trained by Citizens Advice and to professionally qualified and BACP-accredited counsellors who can help students with a range of emotional and psychological difficulties.

Further information:

- Care First

**Crisis support - immediate and urgent help**

If anyone is in immediate danger, medical support can be received by:

- Attending an Accident & Emergency (A&E) department of a local hospital. University College Hospital is the nearest A&E department to UCL’s main campus (this A&E department has a dedicated mental health unit).
- Calling 999 to request an ambulance if you are unable to reach the hospital yourself.
If a student is feeling distressed, urgent medical support can be obtained by:

- Contacting the student's GP surgery to request an emergency appointment.
- If the GP surgery isn't open, the free NHS out-of-hours medical line on 111 can help students access the right services.
- Calling the Samaritans on 116 123 to talk to someone at any time, day or night.
- Nightline are available overnight and can help students across London, call them on +44 (0) 207 631 0101

Further information:

- Crisis support

Equality and inclusion

The Equality, Diversity and Inclusion Team aims to acknowledge, understand, and tackle structural inequities and unjust social power imbalances that affect our communities across the institution. This means recognising how we got here and what needs to be done to ensure equity, inclusion and belonging for those who are not systemically privileged by our society. UCL is a place where people can be authentic and their unique perspective, experiences and skills seen as a valuable asset to the institution.

The Equality, Diversity and Inclusion website brings together a range of information on issues relating to race, gender, religion and belief, sexual orientation, gender identity, and disability amongst other equalities initiatives at UCL.

Further information:

- Equality, Diversity and Inclusion

Inclusion Leads

Inclusion Leads provide support and assistance for students and staff on issues relating to equalities and diversity. The Inclusion Lead for the Department of Statistical Science is Karen Leport (k.leport@ucl.ac.uk).

Further information:

- Inclusion Leads
- Support for pregnant students
- Support for student parents
- Religion and faith
- LGBTQ+ Students

Bullying, harassment, sexual misconduct and/or domestic abuse

Every student and member of staff has a right to work and study without experiencing harm. Bullying, harassment, sexual misconduct and/or domestic abuse of one member of our community by another or others is never ok. UCL is working to eradicate these issues and seeks to promote an environment in which they are known to be unacceptable and where individuals have the confidence to raise concerns in the knowledge that they will be dealt with appropriately and fairly.

To help with this, UCL has Report and Support, an on-line reporting tool where students can report any issues anonymously or contact an advisor to make an informed decision about their options.
Unacceptable behaviour includes:

- Intimidating, hostile, degrading, humiliating or offensive behaviour which has the purpose or effect of violating a person’s dignity or creating an intimidating environment.
- Unwanted conduct related to a protected characteristic that has the purpose or effect of violating a person’s dignity. The unwanted conduct can be physical, verbal, or non-verbal.
- Unacceptable behaviour of a sexual nature such as sexual harassment, invitations, comments, coercion and promised advancement in exchange for sexual access.

If you experience any of these behaviours, you can report it and/or access support. You can request to be contacted by an advisor or you can report anonymously. With either options you can give as much or as little detail as you wish. The reports are strictly confidential and only shared on a need to know basis.

Students can request to speak to all the following advisors:

- Dignity Advisor
- Crime Prevention and Personal Safety Advisor
- Human Resources Business Manager (if it’s about a member of staff)
- Student Mediator
- Student Support and Wellbeing

UCL will do its utmost to support anyone who has been, or is being, affected by sexual violence and/or domestic abuse. If a student would like to talk to somebody at UCL, the Student Support and Wellbeing Team can offer advice on the support available both internally and externally.

Further information:

- Report and Support
- UCL Policies on Conduct and Harassment and Bullying
- Dignity at UCL
- Student Mediator
- Students’ Union UCL Advice Service
- Active Bystander Programme

STUDENT REPRESENTATION

Students’ Union UCL

Students’ Union UCL helps you to do more at UCL, experience something you’ve always dreamt of, turn a curiosity into a new passion and help you reach your potential. The Union cares about the things you care about, it’s made up of all kinds of people from all kinds of places and it’s there to fight for you when you need someone in your corner.

The Union is the representative body of all UCL students. It’s run by students for students and is a registered charity, independent of UCL. All UCL students at every level are automatically members of the Union (but can opt out), and student leaders are elected annually by and from all current students. The elected student leaders who work full time for you are called Sabbatical Officers and they represent students on various UCL committees and influence decisions that matter to students. Alongside the Sabbatical Officers there are more than 2000 other student representatives, who cover every part of UCL life, from your programme, research studies, department, faculty or the UCL accommodation you live in.
Further information:

- Students’ Union UCL website
- Have your say and get involved

**Student clubs and societies**

At Students’ Union UCL, there are over 320 different student-led clubs and societies for you to get involved in. Maybe you are interested in sports with our TeamUCL clubs or low commitment exercise with our Project Active scheme? Perhaps you are keen to perform on-stage in the Bloomsbury Theatre or you want to learn about and celebrate different cultures? With such a diverse offering available there is bound to be something that sparks your interest! Clubs and Societies are a great way to develop your skills and find a community at UCL. The Welcome Fair in late September is the perfect chance to meet them all in one place and learn more about what they have on offer!

Please note that information on student societies at UCL may be subject to change due to Covid-19 – please check with the Students’ Union website below for current information.

Further information:

- Students’ Union Clubs & Societies
- Club and Society Events

**Departmental student society**

Students registered for any of the degree programmes listed at the top of page 2 are eligible for membership of the student-run Statistics Society, which organises social and other activities.

**Academic Representatives**

Your Students’ Union is there to make sure you have the best possible time while you’re studying at UCL. One of the ways they do that is by working with departments and faculties to ensure that every student is represented and has a voice in the way that the university works.

Every student at UCL will have a Course Representative or a Research Student Representative who will be your eyes, ears, and voice. They’ll work closely with staff in your department to make sure that they understand what you most value, and take action to deal with things you’d like to see improve. They’ll also work with your Lead Department Representative as well as your Faculty Representatives and the Students’ Union to make things better across the whole of UCL.

These Academic Representatives are appointed during early October – if you’d like to take up the role, staff in your department can tell you how. If you take up a representative role, the Students’ Union will work closely with you to provide training, support, and advice, and you’ll be able to change the experience of everyone on your programme or in your department for the better.

Even if you don’t fancy taking up a role yourself, keep an eye out for your chance to vote for which students you feel will do the best job.

Further information:

- Academic Representatives
- Find your representative
Staff-Student Consultative Committee

Every department at UCL has a Staff-Student Consultative Committee (SSCC) that meets at least three times a year. Staff Student Consultative Committees are meetings where Academic Reps and staff work together to develop solutions to students’ concerns, and prioritise areas for improvement. SSCCs are co-chaired by your Lead Department Representative. Some departments have a single SSCC, while others split this into different levels of study. Most commonly, departments operate both an undergraduate and postgraduate SSCC.

It is possible in principle for every interested student to attend the committee meetings (subject to space restrictions). The minutes of previous meetings are available on the DOSSSH Moodle page for students to consult.

Departmental Teaching Committee

This committee oversees the organisation and structure of the degree programmes and modules offered by the Department. It also considers teaching matters arising from meetings of the Staff-Student Consultative Committee. Student representatives (including at least one from each undergraduate year group) are invited to Departmental Teaching Committee meetings.

Students’ Union Advice Service

The Students’ Union Advice Service is available to all current UCL students, as well as those who have interrupted their studies or recently completed their programme. Trained and experienced staff are ready to support you with any difficulties that might occur during your time at UCL. The Advice Service specialises in:

- **Academic issues** - including extenuating circumstances, plagiarism and complaints
- **Housing concerns** - including contract checks and housemate disputes
- **Money and debt advice** – including budgeting and income maximisation
- **Employment** - including unpaid wages and part time employment contracts
- The team can also offer help and support with many other legal and university matters

The service is free, independent, impartial and confidential. No information shared with the service is shared with your department or any other university staff unless you request it or give your permission. Students can make an appointment or attend a drop-in session for advice and support.

Please note that information on the Students’ Union Advice Service may be subject to change due to Covid-19 – please check with the Students’ Union website below for current information.

Further information:

- [Students’ Union Advice Service](#)

Student complaints

UCL aims to ensure that every student is satisfied with their experience of UCL. However we recognise that from time to time problems do arise and students may wish to express concern or dissatisfaction with aspects of UCL or the quality of services provided.

*Informal resolution*

Many complaints can be resolved at an informal or local level without needing to submit a formal complaint. Students can speak to their Personal Tutor, Programme Leader,
Departmental or Faculty Tutor or Academic Representative if they have any concerns about their programme. They can also speak to the UCL Student Mediator or the Students’ Union Advice Service. UCL strongly encourages this kind of resolution and does expect students to have attempted some form of informal resolution before making a formal complaint.

**Formal complaints**

If an issue cannot be resolved at a local level, students may feel they need to submit a formal complaint using UCL’s Student Complaints Procedure. UCL aims to ensure that all complaints are treated fairly, impartially, effectively and in a timely manner, without fear of victimisation. The Complaints Procedure applies across all schools, faculties, academic departments and professional service divisions. Students' attention should be drawn to the timescales set out in the Procedure.

Further information:
- UCL Student Complaints Procedure
- UCL Student Mediator

**STUDENT FEEDBACK**

UCL’s goal is to put students’ feedback, insights and contributions at the heart of our decision-making. We value students’ feedback and work with students as partners in the process of shaping education at UCL. In recent years, as a direct result of student feedback, we have opened the Library over the Christmas closure period and increased study space – including 1000 in the 24 hour new Student Centre, we’ve focussed more on environmental sustainability and given clearer information about exams and assessments.

The Department is very interested in how students feel about studying Statistics at UCL and how well we are doing according to the students’ point of view. There are a number of ways in which students can give feedback to the Department, some of which are detailed below. Students are also encouraged to give individual feedback to their Personal Tutor (regarding general issues) and to the module lecturers (regarding specific modules). The Department will try its best to take students’ opinions into account wherever possible.

**Student surveys**

One of the principal ways in which UCL gathers and responds to student feedback is via online student experience surveys such as the National Student Survey, The Postgraduate Taught Experience Survey and the New to UCL survey. Whether it’s about teaching, accommodation, or facilities, surveys are a chance for students to have their say about what works and what needs improving, to help us make sure that UCL is as good as it can be for current and future students. We aim to minimize the volume of surveys students are asked to take, so undergraduates will be invited to take just one institutional survey per year, and full-time postgraduate students will be invited to take two. Each survey usually takes just a few minutes to complete, all responses are anonymous and some include a generous prize draw. Every piece of feedback is read and the results of each survey are then shared with staff right across UCL – including President & Provost Dr Michael Spence.

Further information:
- You Shape UCL

**Module evaluation questionnaires**

Departments also run Module Evaluation Questionnaires on individual modules throughout the year. This gives students the opportunity to feedback about the teaching on their specific
modules, helping departments to continuously improve learning, teaching and assessment. Feedback from MEQs feeds into the Annual Student Experience Review process. The Department relies on feedback from as many students as possible in order to get a clear picture of how well the modules are running and whether improvements can be made. You will be asked to complete a questionnaire for each module that you take. This is usually done during the last two weeks of a module. You are expected to take this exercise seriously. Anonymity is preserved and space is provided on the questionnaires for additional comments if you feel that is required (positive comments are also helpful; frivolous comments will be discounted).

The Annual Student Experience Review (ASER)

UCL’s Annual Student Experience Review (ASER) process requires all departments to undertake an annual self-evaluation and produce a development plan for how they plan to improve in the coming year. The self-evaluation involves looking at student feedback from surveys and module evaluation questionnaires as well as other data about student performance and academic standards, such as the feedback provided by the External Examiner, which helps departments to understand what is working well and what might need improving. Academic Representatives are active participants in the evaluation process and creation of the development plan through discussions at departmental and faculty committees, giving students an important role in identifying and planning improvements within their department. Students can view the completed reports and action plans on the faculty/departmental intranet or Moodle pages.

Further information:
- Annual Student Experience Review (ASER)

UCL ChangeMakers

UCL ChangeMakers helps students and staff work in partnership to make education better at UCL. Its two spheres of activity comprise:

- Student Quality Reviewers, where UCL students take an in-depth look at different areas of education and provide detailed feedback and analysis from a student perspective. Through the Student Quality Reviewer scheme, students can: act as a member of an Internal Quality Review panel; be a Student Reviewer for the Programme and Module Approval Panel; work with staff to reflect on their teaching practice as a Student Reviewer of Teaching (Peer Dialogue); help facilitate community engagement as a Community Engaged Learning Ambassador; and provide a student view on how teaching can include more diverse perspectives as a Student Curriculum Partner.

- ChangeMaker Projects, where students and staff can apply for funding to collaborate on a project focused on enhancing education and students’ experience at UCL. Projects often address issues uncovered by students in UCL Student Quality Reviewers. There are two application deadlines a year, the first is late in Term One and the second is during Term Two.

Please note that information on UCL ChangeMakers may be subject to change due to Covid-19 – please check with the ChangeMakers website below for current information.

Further information:
- UCL ChangeMakers
EMPLOYABILITY AND CAREERS

Careers information
Within the Department, there is a careers section included as part of the DOSSSH Moodle page. Job advertisements and information about careers talks, fairs and courses are posted there. There are special careers talks arranged by the Careers Tutor for students from each year, including first years.

You may approach members of the academic and teaching staff for a job reference. However, please note that staff cannot supply a reference without your written permission (see page 11). If you require a reference, therefore, you should fill in a form, available from the DOSSSH Moodle page (see page 10). This form also contains space for you to provide other relevant information (for example, a description of the position/course you are applying for, and a brief CV). This kind of information will enable staff to write constructive references for you.

UCL Careers
UCL Careers provides a wide variety of careers information, one-to-one guidance and events for UCL students and recent graduates. UCL Careers assists them through the entire job hunting process, including exploring options, searching for vacancies, preparing CVs and applications, practicing for interviews, aptitude tests or assessment centres, and providing access to recruitment fairs and other employment-related events. They can also advise on exploring options for further study and funding. Services and events are available to all taught students, researchers (PhD students and postdocs) and graduates (for up to three years after course completion).

UCL Careers also supports employability activities within departments such as work-related learning and internships. UCL students are helped with applications and sourcing opportunities with web resources and advice. They can book appointments and search for internship and graduate job vacancies via myUCLCareers, this includes our summer internships and global internship schemes.

Please note that this information on UCL Careers may be subject to change due to Covid-19 – please check the websites below for the most up-to-date information.

Further information:
- UCL Careers
- myUCLCareers
- UCL Careers information on internships

Professional accreditation
Royal Statistical Society (RSS)
The Royal Statistical Society (RSS) accredits taught degree programmes on the basis of information supplied by the awarding institution. RSS accreditation provides reassurance that a programme produces graduates with the technical skills and subject knowledge required of a statistician.

The Statistics, SEF*, SEL*, Econ/Stats*, MSci International* and MASS programmes have been accredited by the RSS. The current period of accreditation covers students who first enrol between September 2017 and September 2021. All students on an accredited programme will be eligible for e-Student membership of the RSS, with the potential to
progress along the professional pathway of RSS membership to **Graduate Statistician** and **Chartered Statistician** status. The programmes marked * are accredited on a conditional basis. Graduates from these programmes who wish to apply for Graduate Statistician status with the Society must submit a transcript to show that a satisfactory combination of modules has been taken. A table listing the conditions is provided below.

<table>
<thead>
<tr>
<th>Conditionally Accredited Programme</th>
<th>Condition(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc Statistics, Economics and Finance</td>
<td>At least 60 credits of statistics modules must be taken in each of years 2 and 3</td>
</tr>
<tr>
<td>BSc Statistics, Economics and a Language</td>
<td>At least 60 credits of statistics modules must be taken in each of years 2 and 3</td>
</tr>
<tr>
<td>BSc (Econ) Economics and Statistics</td>
<td>At least 75 credits of statistics modules must be taken in year 3</td>
</tr>
<tr>
<td>MSci Statistical Science (International Programme)</td>
<td>If following the SEF or SEL pathway, at least 60 credits of statistics modules must be taken in year 2</td>
</tr>
</tbody>
</table>

**Management modules**

The **Chartered Institute of Marketing** has accredited some Management modules taken by SAMB students: MSIN0054 Introduction to Marketing, MSIN0027 Marketing Communications, and MSIN0029 Digital Marketing. The School of Management has also been awarded “Partner in Learning” status with the **Institute of Chartered Accountants in England and Wales**.

**Industrial placement schemes**

The Department is sometimes contacted by companies (e.g. actuarial, pharmaceutical) that are offering work placement schemes. These are normally taken at the end of the second year of a degree programme. Following the placement, undergraduate students return to complete the final year of their studies. Details of the arrangements for the current year will be emailed to all students when available.

These schemes are open to all students in principle, although Tier 4 students will need to check that their visa allows them to participate and subsequently to complete their studies, since for visa purposes a work placement is likely to be regarded by the UKBA as “full-time employment” rather than “full-time education”. Any student who is potentially interested in one of these schemes should discuss it further with the Departmental Tutor.

**Entrepreneurship at UCL**

UCL has a long and successful track record of supporting spin-outs and start-ups developed by its academic and student communities. Many of the student and staff entrepreneurs have won external awards and achieved substantial investment allowing their enterprises to grow and reach their full potential. UCL offers a wide range of support to students ranging from training programmes, advice on whether an idea has commercial potential, one-to-one sessions with business advisers, funding, competitions and incubator space to help them start or grow their business.

Please note that information on Entrepreneurship at UCL may be subject to change due to Covid-19 – please check the UCL Innovation and Enterprise website below for current information.

Further information:
- [UCL Innovation & Enterprise](#)
HEALTH, SAFETY AND SECURITY

Health, safety and security at UCL

UCL’s overall objective is to provide and maintain a safe and healthy environment for staff, students, people who work with UCL and those who visit. Health and safety is an integral part of the way in which UCL’s activities are managed and conducted.

There are three departments that work together to provide a comprehensive system to provide the safe and healthy environment:

- UCL Security, who cover everything from ID cards and access to our buildings to lost property and keeping people safe who work out of hours;
- UCL Safety Services, who manage the safety management system including providing advice for risk assessments to training people to work with radioactive samples;
- UCL Estates who ensure the buildings and sites are safe, including managing contractors, building works and access to equipment such as defibrillators.

In an emergency: please call 020 7679 2222 or UCL extension 222 from any UCL phone, before ringing 999. This allows the safety team to direct the emergency services to the correct location. If you are off the Bloomsbury campus call 999 and request the appropriate service (police, ambulance or fire brigade).

Further information:

- Accidents and Emergencies
- Emergency Contacts
- Staying Safe
- Safety Services
- Fire Safety at UCL
- Security at UCL
- Safety in London

AFTER STUDY

Degree certificates and transcripts

A degree certificate will be sent to each successful student awarded a UCL degree within three months of conferral of the award. Five copies of your official transcript, detailing examinations taken and results achieved, is issued automatically to all graduating students and sent to their home addresses as held on Portico within 3 months from the date the award is conferred by UCL authorities.

Transcripts for affiliate students are issued automatically upon the students’ completion of their study at UCL and are dispatched as follows:

- Junior Year Abroad (JYA), Exchange and Erasmus Students – transcripts are issued to the students’ home universities.
- Independent affiliate students – transcripts are posted to the students’ contact addresses.

UCL Student Records can produce additional transcripts for students on taught programmes as well as for affiliate students via the e-transcript service.
Further information:

- Degree Certificates
- Transcripts

**Higher Education Achievement Report (HEAR)**

The Higher Education Achievement Report (HEAR) is an electronic transcript of a student’s verified academic results and approved non-academic achievements whilst at UCL. Students who commenced their studies in or after September 2011 will have a HEAR made available to them online, via our HEAR provider, Gradintel, each summer - new students will be invited to register for this facility during their first year of study and throughout their studies. Students can share their HEAR, free of charge, as a secure electronic token with third parties via their registered Gradintel account.

Further information:

- The Higher Education Achievement Report (HEAR)

**Graduation ceremonies**

Following successful completion of their studies, graduation ceremonies are held to celebrate students’ achievements.

Please note that information on UCL Graduation Ceremonies may be subject to change due to Covid-19 – please check with the Graduation Ceremonies website below for current information.

Further information:

- UCL Virtual Graduations

**UCL alumni community**

As UCL alumni, you join a global community of over 300,000 former students. Alumni can take advantage of a huge range of exclusive benefits including access to thousands of e-journals, use of the library, a UCL-branded email for life and UCL Careers services for up to three years. Stay connected through reunions, international networks, and interest-based groups. UCL students and alumni can also take advantage of UCL’s lifelong learning opportunities through UCL Bentham Connect, our social and professional networking platform, and UCL Connect professional development programme of panel events, workshops, and resources such as blogs, case studies and podcasts.

Further information:

- UCL Alumni