Your studies

STUDENT HANDBOOK
DEPARTMENT OF MATHEMATICAL SCIENCES

Undergraduate student handbook

2016–2017

University of Essex

University of Essex

Sections in this handbook

- Re-marking of coursework
- Moderation, second marking policies and External Examiners
- Appeals and complaints
- Academic offences policy
- Ethics

Coursework (pages 34-38)

- Assignment and essay length
- Coursework submission details (including FASer and deadlines)
- Return of coursework policy
- Late coursework policy
- Essay writing support
- Anonymous marking in coursework policy
- Reassessment of coursework
- Group work and performance

Exams (pages 38-39)

- Examination regulations
- Access to exam scripts
- Calculators
- General information about summer exams and exam results
- Anonymous marking policy in examinations
- Reassessment in examinations

Referencing, plagiarism and good academic practice (pages 39-43)

- Guide to referencing
- What do we mean by academic offences in exams and coursework?
- Plagiarism, academic conduct and responsibilities relating to plagiarism

Section Three: You Matter ***Pages 43 - 49***

Practicalities: Getting Started and IT Matters (pages 43-46)

- Registration, enrolling and transcripts
- Find Your Way and room numbering system
- IT support, wifi, email account, free MS office, computer labs, M:drive
- Tier 4 students
- On campus facilities
- Graduation

Skills, Employability and Experience (pages 46-47)

- Employability and Careers Centre
- Learning Languages at Essex
- Talent Development Centre
- Career Hub
- Frontrunners
- Student Ambassadors

- Volunteering
- Big Essex Award
- Essex Interns

You Matter: Health, Welfare, Support and Safety (pages 47-49)

- Student services hub
- Harassment advisory network
- Faith groups
- Nightline
- Health and safety on campus, including personal evacuation plans and campus security details
- Residence Life
- Health Centre
- Students' Union Advice Centre
- University Privacy Statement

Section 4: Essex Matters ***Pages 50-51***

The Essex Experience

- The Essex Charter
- Freedom of speech policy and the Code of Conduct
- Essex Spirit, social media and What's on?
- Students' Union
- Alumni
- What comes next? Postgraduate study in the department and the University
- HEAR

University of Essex

Section 1: Introduction

Welcome from the Head of Department

It is my great pleasure to welcome first year students to the Department and to welcome back second and final year students. In the following, I'd like to point out recent developments, highlight your and our responsibilities and that we are working together to achieve the vision of our University:

Excellence in Education and Research.

To support student and staff communication and working together, each year has a dedicated team of four or five Personal Tutors who will be involved in events and tasks of the employability and careers module (MA199) as well. Using the most recent statistics, we have achieved together that *90% of our students are employed in graduate jobs 6 months after graduating*.

Recently we received further funding by Innovate UK supporting an environment of excellent opportunities for our students and graduates and contributing to the development and delivery of our taught courses. Moreover, it underpins our new *MSc Data Science* and *MSc Statistics* (both introduced October 2014) and the introduction of the *MSc Actuarial Science* (October 2017). The Department continues to grow. Since 2013 four academics specializing in Applied Mathematics have joined Essex Mathematical Sciences allowing us to work on further improvements of our *Applied Mathematics* modules and in addition we are considering introducing four year taught undergraduate MSci programmes (anticipated start October 2017): *Actuarial Science and Statistics*; *Applied Mathematics*; *Data Science and Mathematics*.

We encourage that room 6.314 be used as our common *and* meeting room. In the morning (9.30 am), at lunch time (1.30 pm) and in the evening (6 pm – 8pm) the room is a potential meeting point to be used by all members of the Essex Mathematical Sciences community: alumni, friends, students and staff. So far we plan on Monday evenings a course for Mathematical Sciences English for non-native speakers (limited capacity, if you are interested contact Dr Brawn), on Tuesday and Thursday evenings we encourage use by a student-led Maths society, on Wednesday evenings an Essex chess club and on Friday evenings meetings to discuss managing Fantasy Football teams and similar weekend related topics.

Moreover, we are delighted that the University of Essex is investing substantially in Mathematical Sciences. By 2018 we will have a new home in the state-of-the-art £13.2million science, technology, engineering and mathematics (STEM) building. The new STEM building will transform Square 1 into a dedicated science square with new collaborative learning spaces and interdisciplinary teaching facilities.

Our Department is relatively small and we believe that this has many benefits to students and all members of the Essex Mathematical Sciences community. For instance, staff members will know you by name. It is also easy for you to know all members of staff, whether they teach you or not. You will find that staff will try to contact you for all sorts of reasons! *You need to check your Essex email on most working days during term time, since staff who want to contact you will normally do so by email*.

If you have timetable problems or other general problems relating to administrative matters, please talk to Claire Watts our Departmental Manager, or Frankie Lever our General Administrator, who look after most undergraduate matters. If you want guidance on academic matters you can either talk to the Undergraduate Directors, Dr Noferini for first year students, Dr Williams for second year students or Professor Higgins for third year students, or to your Personal Tutor. If you have problems of a personal nature, you can talk to your Personal Tutor, or the Senior Tutor (Dr Aris Perperoglou), or to any other members of the departmental staff that you find easy to talk to. Remember also that there is a Counselling Service available through Student Support, which is completely confidential.

The Department operates an Open Door policy which should allow you to get help whenever you need it, provided the lecturer is available. The Maths Support Centre also runs daily help sessions that you should take advantage of. It is located on the ground floor of the Silberrad Student Centre.

By the very nature of the educational process, we are all learners together. We hope that you will tell us about things that we could do better, or ways in which we have particularly helped you. There is a formal mechanism for this called the Staff/Student Liaison Committee (see page 28), and we rely on you to ensure that there will be sufficient student volunteers for those committees, but we also hope that you will feel free to talk to us at any time

I hope that you will have an enjoyable and productive time in the coming academic year as a member of the Essex Mathematical Sciences community.

Professor Berthold Lausen
Head of Department

University of Essex

About your Departmental Handbook

This handbook has been designed to give you essential information about your Department and the University.

Other sources of information are available to help you at www.essex.ac.uk/myessex. Our friendly departmental staff are here to help and you can find their contact details in this handbook.

Remember that at Essex, we don't separate our students and academic staff, or our professional services staff from our alumni. Everyone is a member of our community for life. Our three uniquely intimate campuses encourage an inter-weaving of people, ideas and disciplines. We celebrate diversity and challenge inequality. Whatever your background, race or sexual orientation, you are part of a vibrant community that lives, learns and plays together.

Make sure you bookmark the departmental website too (www.essex.ac.uk/maths), and the central University module directory and the online resource bank – all of which you can find via the University's student web pages at: www.essex.ac.uk/students. All information in this guide was correct at the time of printing. For updates please refer to www.essex.ac.uk.

Term dates

2016-2017

Autumn term	6 October 2016 – 16 December 2016
Spring term	16 January 2017 – 24 March 2017
Summer term	24 April 2017 – 30 June 2017

2017-2018

Autumn term	5 October 2017 – 15 December 2017
Spring term	15 January 2018 – 23 March 2018
Summer term	23 April 2018 – 29 June 2018

The university year by week and academic week numbers can be found here: https://www.essex.ac.uk/students/course-admin/timetables.aspx

Your timetable

You can view your timetable at: **https://www.essex.ac.uk/timetables** (you will be prompted to login using your Essex username and password). Once you have chosen all your modules and received confirmation, they will appear on your personal timetable. You may find that the first week of your timetable is blank if you do not have any course commitments in Welcome Week. You can also access your timetable on most mobile devices including smart phones and tablets.

The myEssex student portal

myEssex is your online account. Use it to see your timetable, keep your personal details up-to-date, see how you're doing on your course, let us know if you'll miss a lecture or class, contact the Student Services Hub and much more. https://www.essex.ac.uk/myessex/

University of Essex

Meet your Departmental staff

	e-mail	Room	Phone
Head of Department			
Professor Berthold Lausen	blausen	6.316	2958
Departmental Manager			
Miss Claire Watts	cmwatts	6.318	3040
Undergraduate Administrator			
Mrs Vicki Cantegreil	vlcant	6.320	3355
Graduate Administrator			
Miss Shauna McNally	smcnally	6.320	2704
Administrative Assistant			
Mrs Sarah Marshall	sjmars	6.320	3095
Academic Staff			
Dr Chris Antonopoulos	canton	6.323	3018
Mr Keith Bannister (part-time)	kbanni	2.525	tbc
Dr Dan Brawn (part-time)	dbrawn	2.521	tbc
Professor Edd Codling	ecodling	6.302	4567
Dr Hongsheng Dai	hdaia	6.304	3304
Dr Georgi Grahovski	gggrah	6.313	3033
Dr Martin Griffiths (part-time)	griffm	2.523	3027
Dr Andrew Harrison	harry	6.306	2964
Dr Haslifah Hashim	hhashim	6.305	3025
Professor Peter Higgins (3rd Year Director)	peteh	6.317	3019
Dr Vanni Noferini (1st Year Director)	vnofer	6.309	3032
Dr John O'Hara (part-time)	johara	5A.536	2680
Dr David Penman (Deputy Dean Education)	dbpenman	2.526	2839
Dr Aris Perperoglou (Senior Personal Tutor)	aperpe	6.311	3036
Dr Chris Saker (Director of Education)	cjsake	6.315	2961
Professor Abdel Salhi	as	6.301	3022
Dr Hadi Susanto	hsusanto	6.307	2689
Dr Alexei Vernitski	asvern	6.303	3024
Dr Spyridon Vrontos	svrontos	6.319	4717
Dr Gerald Williams (2nd Year Director)	gwill	6.308	3035
Dr Xinan Yang (Study Abroad Officer)	xyangk	6.310	2787
Computer Officer			
Mrs Anne Owen (p/t)	owena	6.320	2704
Emeritus and Visiting Fellows			
Dr David Branson	brand	5.519	4294
Professor John Dowden	dowdj	5.519	4294
Dr John Ford	fordj	5.519	4294
Professor David Fremlin	fremdh	5.519	4294
Professor Larry Lind	larry	5.519	4294
Research Officers			
Dr Rolando Medellin Gasque	rmedel	2.525	tbc

Who to go to if you need help

If you have any queries relating to your Department or course of study, please contact the departmental office in the first instance (room 6.320).

Need to talk to your Personal Tutor?

Members of staff will publicise their office hours (usually an "open-door" policy) but are always available by prior arrangement outside these hours. They can be contacted by telephone and by email. If any emergency arises and a member of staff is not available, then the General Administrator (Frankie Lever, room 6.320) is the next point of contact. Notes can be left on staff doors or in pigeonholes. Students wishing to see the Head of Department should contact Claire Watts for an appointment.

Our staff

For more details on any member of staff in the Department, please see http://www.essex.ac.uk/maths/staff/Staff.aspx?type=all.

Contacting members of staff

Lecturers will specify their preferred method of contact. If they have office hours, they will display them on their doors, but most members of staff have an Open Door policy, i.e. they will see students at once unless they have another commitment. Most staff are in most days except perhaps one working day per week (at most) during term. During the vacations, or outside office hours, it may be best to email the relevant member of staff to make an appointment to see them in advance, as not all members of staff will be in every day due to conferences, holidays, etc.

Our location

Colchester Campus
Department of Mathematical Sciences
University of Essex
Wivenhoe Park
Colchester CO4 3SQ

Direct tel: 01206 873355
General enquiries: maths@essex.ac.uk
Pre-registration programme enquiries: maths@essex.ac.uk
Website: www.essex.ac.uk/maths

Departmental resources

Departmental Common and Meeting Room 6.314

This room is available to students at many times during the week. We encourage that room 6.314 is used as our common *and* meeting room. In the morning (9.30 am), at lunch time (1.30 pm) and in the evening (6–8pm) the room is a potential meeting point to be used by all members of the Essex Mathematical Sciences community: alumni, friends, students and staff. So far, we plan on Monday evenings to run a course for Mathematical Sciences English for non-native speakers (limited capacity, if you are interested contact Dr Brawn), on Tuesday and Thursday evenings we encourage use by a student-led Maths society, on Wednesday evenings an Essex chess club and on Friday evenings meetings to discuss managing Fantasy

Football teams and similar weekend related topics. The room is equipped with a microwave, water cooler and hot drinks machine. We will try to make students aware of when the room is going to be in use via a weekly timetable on the door. Please keep the Common and Meeting Room clean and tidy.

Computer Labs
Need to use a computer on campus? We have more than 600 Windows-based computers on our Colchester Campus for you to use for study or work related tasks, located within 17 computer labs across campus, including in the Albert Sloman Library. Many stay open until late and some are open for 24 hours a day, 7 days a week. For computer lab locations, opening hours and real-time availability please visit: http://www.essex.ac.uk/it/services/computers-and-software/.

There is a Departmental Computer Lab in room 6.327 equipped with 20 computers and 2 stations with data port connections for laptops as well as printing and scanning facilities. These computers are for use by Maths students working closely with academic staff on Capstone Projects. The Departmental Computer Lab may sometimes be used for teaching. It can be used by all Maths students when available.

Departmental Office 6.320
Frankie Lever is the General Administrator and deals with most undergraduate matters. Sarah Marshall is the Administrative Assistant and deals predominantly with attendance monitoring and departmental events. Shauna McNally is the Graduate Administrator and deals with all graduate matters. Claire Watts is the Departmental Manager and is able to assist with both undergraduate and graduate matters.
The Office is normally open to students from 9.30am-12.30pm and 2pm-4.30pm.

Noticeboards
There are student noticeboards in the lobby area outside room 6.311. A copy of the timetable for your year group will be published here along with general university and departmental notices. Please check this noticeboard regularly.

Photocopying
There are photocopiers for student use in the Albert Sloman Library and the Silberrad Student Centre. There are instructions by each copier which tell you how to use the copiers, and how to follow copyright law.

Departmental Support

Your Personal Tutor
Each student in the Department of Mathematical Sciences is allocated to a Personal Tutor, who is a member of the Department's academic staff. The list of Personal Tutors is posted on the notice board on the wall outside room 6.311.
First-year students will have an opportunity to meet their Personal Tutor during Welcome Week. Your Personal Tutor is there to help you, to give you guidance in both work and personal concerns. If you have any worries at all you must get in touch with your Personal Tutor as soon as possible; even if he/she is unable to help he can usually suggest someone else who can. In particular you should inform your Personal Tutor of any circumstances (medical or otherwise) that are affecting your ability to study. A conversation with your Personal Tutor will normally be confidential unless you both agree otherwise. Other matters you want to discuss with your Personal Tutor include your employability portfolio.
It is very important that you make semi-regular contact with your Personal Tutor since you want someone to know you well enough to be able to write references for you in your final year. Indeed, Tutors will normally be asking their tutees to come to see them at least a couple of times each year to discuss any issues that may arise, including signing in at the start of each term.
Dr Aris Perperoglou is the Department's Senior Tutor. He will be available to help you if your own Tutor is ill or away. If, for any reason, you wish to change your Tutor you should see the Senior Tutor, who will organise this for you. (If your Tutor is Dr Perperoglou and you wish to change Tutors, talk to Professor

Higgins). If you have difficulty in finding either your Tutor or the Senior Tutor then speak to one of the Administrators in the Department, who will be able to get in touch with them for you.

Peer Mentors

The department operates a peer mentoring system. Mentoring is a relationship usually between a new student – the mentee, and a more experienced student – the mentor, who can help a mentee to settle in and inspire and motivate the mentee to make the most of their University experiences. If you are interested in having or becoming a mentor please email vlcant@essex.ac.uk. You can find more information about peer mentors here: www.essex.ac.uk/students/study-resources/mentoring/peer-mentoring/default.aspx

Job references: Requesting references from members of staff

If you require a personal reference, always ask permission from a member of staff before giving their name as a referee. You should consider from whom it is most appropriate to request a reference and who will be best equipped to evidence your character and performance in the subject.

For example, Personal Tutors, final year project supervisors, Undergraduate Directors, or core course supervisors are likely to be more suitable than lecturers that have taught you on a first year optional module. Discuss the matter with Professor Higgins if in doubt. Every reasonable effort will be made to meet a request for a reference for graduates up to three years after they leave the University. Requests received outside of this timescale may, of course, be met if a member of staff is equipped with the necessary information on the student and is willing to provide a reference. In the case of research students, it would be normal to expect to provide a reference for a more extended period of up to ten years.

It is helpful if you can provide the member of staff with details of the course or job you have applied for and, if relevant, a CV or other summary of your qualifications and experience. Please try to ask for references in good time – It is not always possible for a member of staff to write a reference immediately.

Copies of references

A copy of any reference provided will be retained within our Department for no longer than three years for taught students and ten years for research students. If a reference is retained beyond this timeframe, our Department will seek explicit consent from the student concerned.

Help to prepare for your exams

Exams in this department are taken in the main exam period. Preparing for exams can be stressful and you can find some useful advice on this at http://www.essex.ac.uk/maths/documents/exam-advice.pdf and at http://www.essex.ac.uk/maths/documents/exam-advice2.pdf.

Exam rubrics can be found online on the “Current Students” webpage: www.essex.ac.uk/maths/current_students/Default.aspx

The Department and social media

The Department of Mathematical Sciences is on Facebook and Twitter! ‘Like’ us on Facebook or follow us on Twitter for details of departmental events, the latest departmental news, job adverts, quizzes, and stories of mathematical interest:

Facebook: http://www.facebook.com/UoEmaths

Twitter: http://twitter.com/EssexMaths

Maths Support

Maths support is open during term-time. It's run jointly by the Talent Development Centre and the Department of Mathematical Sciences. You can get help from their trained advisors, who are all students from the Department of Mathematical Sciences.

They have a range of resources available including practice worksheets and online numeracy tests. They're happy to help on a one-to-one or small group basis. The aim is to give you an opportunity to chat through a problem and to help you see how to solve it yourself.

All your questions and problems will remain confidential.

To contact the Maths Support Centre e-mail: mathssupport@essex.ac.uk or visit their webpage: http://www.essex.ac.uk/students/study-resources/tdc/maths/ for more information.

How we will contact you

By email: this is the preferred form of communication with students. Be sure to check your Essex email regularly. The Department strongly recommends you to check your email every day.
By letter: to your local or home address: this is used only when email is inappropriate (e.g. for serious problems concerning academic progress or absence from teaching events).
By a notice on your student portal: myEssex. Your student portal will alert you about modules and other aspects of your studies.
By telephone: this is used in emergencies or when it is otherwise necessary to receive an immediate response.

Please ensure that you keep your contact details up to date. You can update them via myEssex.

Departmental prizes

IMA Prize (awarded to two students annually)

Criteria: Awarded to two undergraduate students with outstanding performance in the final year of a mathematics course.

In the event that there are students with the same mark the students will each get the IMA prize subject to agreement from the IMA.

Value: A year's free membership to the Institute of Mathematics and its Applications (IMA)

Winsten Prize (awarded to one student annually)

Criteria: Awarded to the undergraduate student with the best degree mark across all degrees administered by the Department of Mathematical Sciences.

In the event that there are students with the same mark the prize will be awarded to the student with the best overall degree performance.

Value: £200

University of Essex

Timothy Jarvis Prize (awarded to one student annually)

Criteria: Awarded to the first year student with the best year mark above 60%.

The prize will be awarded at the Graduation reception (where the first year student will be invited to attend).

In the event that there are students with the same mark the prize will be split.

Value: £100

University of Essex

Section 2: Academic Matters

Learning and teaching methods

The University is committed to providing equal opportunities for all our students regardless of where or how you study. Our diverse student population is taken into account when developing the resources, services and facilities on and off campus, when we create our courses, write publications and course materials, and set our policies and regulations. Where appropriate, reasonable adjustments will be place for individual students to support them through their studies.

A range of methods of teaching are used in this Department, according to what lecturers of particular modules feel is the most appropriate way to convey information in that particular case. The main method in most courses is a formal lecture, but lab work (where appropriate) is also common and examples classes are built into most modules. These methods of teaching have somewhat complementary, though overlapping, aims. If you wish to discuss the methods of teaching in any particular module further, talk in the first instance to the module lecturer.

Moodle, ORB and FASER

Our **online resource bank (ORB)**, stores important module materials such as reading lists and past exam papers.

We use **Moodle** as our online learning environment, to enhance face-to-face teaching. It lets you get to course materials, and has built-in features to enhance learning such as discussion forums, chat facilities, quizzes, surveys, glossaries and wikis.

FASER is our **online coursework submission and feedback system**. Use it to submit your coursework electronically, produce a watermarked copy of your work and receive electronic feedback all in one place.

faser.essex.ac.uk
www.essex.ac.uk/it/elearning

Course structures

Undergraduate Degree Courses

BSc Single Honours

- Mathematics G100 ° ˜
- Mathematics with Physics G1F3 ˜
- Mathematics for Teaching G190 *
- Mathematics and Statistics 9K12 ° ˜
- Actuarial Science N323 °

BSc Joint Honours

- Accounting and Mathematics GN14 *
- Computing and Mathematics GG14 *

- Mathematics with Computing G1GK ° ˜
- Mathematics, Cryptography and Network Security GG1K *
- Economics and Mathematics LG11
- Mathematics with Economics G1L1 *
- Finance and Mathematics GN13
- Management and Mathematics NG21 *
- Management, Mathematics and Economics NGL0 *
- Mathematics with a Modern Language G1R9 *

All of the above degrees are also offered as four year programmes with the third year abroad with the exception of Management, Mathematics and Economics. Courses marked with ° are available as four year programmes with a placement year in the third year. Courses marked with * are no longer available to new students. Course marked with ˜ are accredited by the Institute of Mathematics and its Applications (IMA).

A Brief Outline of the Degree Courses

The first year at Essex is spent in students gaining the basic knowledge that is required before specialising in their chosen degrees.

The examinations at the end of the first year do not count towards the class of degree finally awarded. However, students must obtain a minimum of 330 credits to get a degree. It is therefore very important that students pass all their modules. Students should act on the assumption that they must pass all their modules. Naturally, a sound knowledge of the first-year topics will be required in order to do well in the subsequent years.

The marks obtained in the first-year examinations also provide a useful guide in determining whether a student should proceed to the final stages of the degree originally chosen, or should switch to another degree which appears better suited to that student's ability.

The department offers a Mathematics Careers and Employability module (MA199) taken by all undergraduate students on all degree schemes. This is a compulsory, zero credit module and does not count towards the degree but the final result (Pass/Fail) will appear on the transcript. The module will allow students to compile a portfolio of employability skills which are essential to gaining employment after graduation.

The more advanced work starts in the second year. The final degree mark is calculated using the second and final year results in accordance with the rules of assessment. Please note that students must pass at least 90 credits at level 6 (third year modules) in order to be eligible to graduate.

Mathematics degrees with a year abroad

All courses offered by the Department of Mathematical Sciences are available as four year versions with the third year spent abroad (with the exception of Management, Maths & Economics). Students on these degrees should start thinking about which University abroad they wish to go to before the end of their first year, and discuss the subject with the Study Abroad Officer, Dr Xinan Yang. Note that students on courses with a year abroad have additional requirements to meet compared with most courses. For detailed rules please see the Rules of Assessment

(www.essex.ac.uk/students/exams-and-coursework/ppg/general/assess-rules.aspx).

The module structure for your first two years and your final year are the same as our three-year versions. Any institution with which we have a partnership can be selected, provided there are suitable modules for your degree, at the right level, for you to take during the year abroad (and you speak the local language well enough if it is not English). We enjoy particularly close links with California State University in Chico and the University of Utah in Salt Lake City, but our Study Abroad Office will help you wherever you want to go. This offers you an exceptional opportunity to live in and experience another culture, explore a greatly enhanced range of mathematical topics (since the subjects taken during your third year differ from those subsequently taken in your fourth year) and to enhance your CV and employability.

Students doing these degrees should be aware that they are expected to, in addition to the usual requirements for passing a year, obtain an overall year mark of 50% in their first year and must pass all their core second year modules at the first attempt. They should also be aware of the Rules of Assessment for these courses.

BSc Mathematics and Mathematics for Secondary Teaching

These degrees share a common first and second year. (Students on the secondary teaching option visit schools during the second year). There may be an opportunity to change to a joint degree at the end of the first year.

BSc Actuarial Science

The course aims to provide an advanced understanding of the theoretical, practical and technological developments that affect the whole of the actuarial discipline. The course also provides the foundation for a career in many areas of finance and risk. It also offers the opportunity to prepare for eight of the Core Technical Subjects (CT1 to CT8) of the professional examinations of the Institute and Faculty of Actuaries. As well as specialised Actuarial modules, the course includes modules in Economics, Finance and Mathematics.

BSc Mathematics and Statistics

Mathematics and Statistics is a degree designed for mathematicians who are oriented towards applying their skills into understanding and analysing data using modern statistical methods. This is an area suitable to those who enjoyed Mathematics and Statistics at A-level and enjoy solving practical problems.

BSc Computing and Mathematics

The course includes the basic modules in mathematics and computer science, and a specialised option in computer science. In subsequent years, there is a broad balance between the two subjects (at least three half-weight modules out of eight in each department) with a choice of options.

BSc Mathematics with Computing

This course is for the mathematician with a serious interest in computing. After a first year covering the core mathematics, and key computing topics like programming, databases etc., students do further maths and computing in their second years, then have a broad range of options for a final year.

BSc Mathematics, Cryptography and Network Security

The most commonly used piece of software world-wide is the RSA encryption program, which depends on results on classical number theory. A range of advanced mathematics modules are combined with programming, cryptography and network security.

BSc Economics and Mathematics

The first year for this degree contains economics and mathematics, including computing.

Years two and three of the course are equally divided between modules in Economics and modules in Mathematics. At the end of the degree, a graduate has a good training in mathematics, and economics at both the micro-level and the macro-level.

BSc Mathematics with Economics

This is a three-year degree for the mathematician who also has an interest in Economics. There are many areas where a graduate with knowledge of both areas can work, including finance, accountancy and management.

BSc Mathematics with Physics

Our BSc Mathematics with Physics is a three-year course that allows you to gain the knowledge and skills that will be in demand across both the mathematically- and scientifically-oriented sectors. This will provide you with employment opportunities within business, commerce, education, engineering, government service, industry and research as well as from the wider economy.

BSc Management and Mathematics

The first year for this degree contains mathematics, management, and accounting.

Years two and three of the course are equally divided between modules in Management and modules in Mathematics. At the end of the degree, a graduate has a good training in mathematics, and management.

BSc Management, Mathematics and Economics

This course combines the study of core mathematics, central economic theory and management. Students can choose to specialise to some extent in the later stages of the degree.

BSc Finance and Mathematics

This is a challenging degree: in every year students take modules in three different disciplines (mathematics, economics and accounting).

BSc Accounting and Mathematics

This course consists of Mathematics and Accounting modules along with modules in Economics and Law. The course aims to train students in analytical thinking and logical deduction, whether it be in the development of an argument or proof in Mathematics or in deriving a solution based on accounting principles.

BSc Mathematics with a Modern Language

This degree aims to equip students with a good level of mathematical knowledge, thereby giving them knowledge and skills that are currently in demand in mathematically oriented employment and to produce graduates with at least a proficiency level of competence in a suitable modern language. It includes a mixture of core mathematical modules and a choice of modern language modules.

Programme specifications

Programme Specifications provide key information, such as the structure and aims of your course, as well as the knowledge and skills you will develop. The relevant Programme Specification for your course and stage of study will be available to you when you log onto either myEssex or eNROL. You can also view Programme Specifications online at www.essex.ac.uk/programmespecs/.

Learning outcomes

Your course's learning outcomes are set out in the Programme Specifications. They are categorised into knowledge and understanding, intellectual/cognitive, practical and key skills, and are linked to the aims, learning outcomes and assessment on the modules you take. You can measure your progress against the outcomes, for example when reviewing coursework feedback, and they can be used to guide you when undertaking independent study. You can find a copy of the module map showing how your course learning outcomes are connected to the modules at: http://www.essex.ac.uk/programmespecs.

Full module outlines are available in the online Module Directory at http://www.essex.ac.uk/modules

University of Essex

First Year Credit Structure

	Credits	Maths (G100)	Maths & Stats (9K12)	Math w Comp (G1GK)	Maths w Physics (G1F3)	Actuarial Science (N323)	Fin & Maths (GN13)	Econ & Maths (LG11)
MA101-4-FY: Calculus	30	Core	Core	Core	Core	Core	Core	Core
MA105-4-AU: Applied Maths	15	Comp			Comp			
MA108-4-SP: Statistics I	15	Core	Core	Core	Core	Core	Core	Core
MA114-4-AU: Linear Maths	15	Core	Core	Core	Core	Core	Core	Core
MA125-4-SP: Mathematical Skills	15	Comp						
MA126-4-SP: Financial Mathematics	15		Comp			Core	Comp	Comp
MA181-4-AU: Discrete Mathematics	15	Comp	Comp	Comp	Comp			Comp
MA182-4-SP: Numerical Methods & Computing	15	Comp	Comp	Comp	Comp			
MA199-4-FY: Mathematics Careers and Employability	0	Comp	Comp	Comp	Comp	Comp	Comp	Comp
CE151-4-AU: Introduction to Programming	15		Comp	Core				
CE152-4-SP: Object-Oriented Programming	15			Core				
CE163-4-AU: Foundations of Electronics I	15				Comp			
EC111-4-FY: Introduction to Economics	30					Core	Core	Core
BE100-4-FY: Introduction to Accounting	30							
BE302-4-SP: Introduction to Finance	15					Core	Core	
TOTAL CREDITS		120	120	120	120	120	120	120

Note: AU means Autumn term
SP means Spring term
FY means Full Year
Comp means Compulsory
Opt means Optional

The first year of four-year courses with the third year spent abroad or on placement are identical to the three-year counterparts.

University of Essex

A summary of Second and Final Year Mathematics Modules

Students currently in their second and final years have a choice of the following modules. Please note that this is subject to change in subsequent years.

The second and final years of four-year courses with the third year spent abroad or on placement are identical to the three-year counterparts.

	CREDITS	MATHS	Actuarial Science	Maths & Stats	Maths w Physics	Maths w Comp	Econ & Maths	Finance & Maths
MA201-5-AU: Linear Algebra	15	Comp		Opt	Comp	Opt	Opt	
MA203-5-AU: Real Analysis	15	Comp		Opt	Opt	Opt	Comp	
MA205-5-SP: Optimisation	15	Comp		Opt	Opt	Opt	Opt	Opt*
MA206-5-AU: Mathematical Methods	15	Comp	Comp	Comp	Comp	Comp	Comp	Comp
MA207-5-AU: Statistics II	15	Comp	Core	Core	Comp	Comp	Comp	Comp
MA209-5-SP: Introduction to Numerical Methods	15	Opt		Comp	Opt	Opt	Opt	
MA210-5-SP: Vector Calculus	15	Opt		Comp	Comp	Opt	Opt	
MA211-5-SP: Finance and Financial Reporting	15	Opt	Core					
MA212-5-AU: Contingencies I	15	Opt	Core	Opt				
MA216-5-SP: Survival Analysis	15	Opt	Core	Core	Opt	Opt	Opt	Comp
MA224-5-AU: The Laws of Physics	15	Opt		Opt	Comp			
MA225-5-SP: Quantum Mechanics	15	Opt			Comp			
MA199-5-FY: Mathematics Careers and Employability	0	Comp	Comp	Comp	Comp	Comp	Comp	Comp

* MA205 is optional in year 3 of the Finance and Maths course.

Students on joint degrees which contain modules from the partner department are advised to check the enrolment tab on their online timetable to confirm their course structure for the year.

University of Essex

	CREDITS	MATHS	MATHS/TEACH	ACT SCI	Maths & Stats	Maths w Physics	Comp & Maths	Maths w Comp	Math, Crypt & Net Sec	Acc & Maths	Econ & Maths	Maths w Econ	Man & Maths	Fin & Maths	MME	M w Mod Lang
MA302-6-SP: Complex Variables	15	C	C		O	C	C	C	O	O	O	O	O		O	C
MA303-6-AU: Ordinary Differential Equations	15	C	C		O	C	C	C	C	C	C	C	O	C	O	C
MA305-6-AU: Nonlinear Programming	15	O	O		O	O	O	O	O		O	O	O		O	O
MA306-6-AU: Combinatorial Optimisation	15	O	O		O	O	O	O			O	O	O		O	O
MA311-6-SP: Mathematics of Portfolios	15	O	O	Co	O		O	O		C	C	C	C	C	C	O
MA312-6-AU: Contingencies II	15			C	O											
MA314-6-SP: Graph Theory	15	O	O		O	O	O	O	C	O	O	O	O		O	O
MA315-6-AU: Cryptography and Codes*	15								C							
MA317-6-AU: Modelling Experimental Data	15	O	O		Co	O	O	O	O	O	O	O	O	O	O	O
MA318-6-AU: Statistical Methods	15	O	O	Co	Co	O	O	O	O	O	O	O	O	O	O	O
MA319-6-AU: Stochastic Processes	15	O	O	C	O	O	O	O	O	O	O	O	O	O	O	O
MA320-6-SP: Financial Derivatives	15			Co	O					O	O	O	O	O	O	
MA321-6-SP: Applied Statistics	15				Co	O	O	O	O	O	O	O	O	O	O	O
MA322-6-SP: Bayesian Computational Statistics	15	O	O		O	O	O		O	O	O	O	O	O	O	O
MA323-6-SP: Partial Differential Equations	15	O	O		O	O	O	O	O		O	O				O
MA333-6-SP: Mathematical Biology	15	O	O		O	C	O	O					O			O
MA830-6-AU: Project	15	O			O	O	O	O	O		O	O	O		O	O
MA830-6-SP: Project	15	O			O	O	O	O	O		O	O	O		O	O
MA831-6-FY: Project	30	O			O	O	O	O	O		O		O		O	O
MA832-6-FY: Teaching Project	30		C													
MA199-6-FY: Mathematics Careers and Employability	0	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

C = Compulsory, Co = Core, O = Optional

*MA315-6-AU will not be available as an optional module in 2016/17 due to staff study leave.

Students on joint degrees which contain modules from the partner department are advised to check the enrolment tab on their online timetable to confirm their course structure for the year.

Students should select an appropriate number of optional modules so that including the credits for their compulsory modules they are taking a total of 60 credits in each of the Autumn and Spring terms.

Note: depending on your degree scheme, there may be a requirement to complete optional modules from another department. Please refer to the Programme Specifications for more information. www.essex.ac.uk/programmespecs/

At most, one of MA830-6-AU, MA830-6-SP, MA831-6-FY and MA832-6-FY may be taken. MA832-6-FY is taken only by students on Mathematics for Secondary Teaching.

Changing your degree and maximum period of study

If you want to **change your course**, you should talk to someone in your department first. Check the deadlines for course changes with the Student Services Hub.

Investigate your potential new course by looking at course information on the department's web pages, talking to students on the course and speaking to tutors. You should also look at our Rules of Assessment for the new course to check whether there are any course-specific requirements.

If you are considering changing course due to academic worries with your current course, you might find it useful to seek academic support before changing. Contact the Talent Development Centre for advice. www.essex.ac.uk/students/study-resources/tdc

If you want to make a formal request for a course change, you should do so via the online Course Change form. Go to www.essex.ac.uk/students/course-admin/changing-course for more information.

Undergraduate students have a **maximum period in which to complete their studies**. This is set at the point at which you register, and is normally the length of your programme plus two additional years. This is to allow some flexibility in cases where you find you must intermit, or you fail a stage of study and must repeat it, or you want to transfer to a new course and must retake a stage of study.

Module details

Please see the module directory www.essex.ac.uk/modules for more details of each module, including who teaches them, the number of contact hours and the assessment requirements. A core module must be taken and passed, a compulsory module must be taken and an optional module is one that a student selects from a list of options via ENROL (see below).

Reading lists

All reading lists are available here: http://readinglists.essex.ac.uk/

Module Enrolment Procedures

www.essex.ac.uk/enrol gives University information about how to enrol for optional modules online. Details about how to change modules are given at www.essex.ac.uk/students/course-admin/modules.aspx.

Note that while you can change your Autumn Term choices up until 8:59am on Monday 24th October 2016, you cannot change thereafter without special permission, which may not be obtainable. You can change your Spring Term choices up until 8:59am on Monday 30th January 2017.

If you wish to change modules after the second week of teaching, or wish to change from one course to another you should inform the Undergraduate Director, Professor Higgins. If Professor Higgins agrees that changing modules or course is possible, please complete the relevant form on the Electronic Student File system: https://www.essex.ac.uk/esf/

Changing optional modules

By the start of your course or a new academic year, you will already have made an initial choice of modules. If you are in any doubt as to whether you have made the right choice, try to talk it over with your Personal Tutor or the Undergraduate Director. It is usually possible to change modules up to the end of the second week of the Autumn Term. If you are not sure which modules to take you could attend lectures for several different modules before making your final choice. For more information go to information on changing modules at the start of the academic year: www.essex.ac.uk/students/course-admin/modules.aspx

Requesting a class change

Students are automatically assigned to classes based on availability by the Central Timetabling Office and in the attempt to produce a clash free timetable for every student.

In special circumstances students may request a change in their class allocations – for example, if you have childcare or caring commitments, work commitments, attendance on other courses of study or for medical reasons. Permission to change to an alternative class or lecture is agreed at departmental or school level and the right is reserved to refuse permission to change. The above list is not exhaustive, and we understand there may be other genuine reasons for changes. We may ask for evidence to support your change of class request. Please note class change requests are subject to availability within other classes.

Final year projects

MA830-6-AU or SP (One-term project)
MA831-6-FY (Full-year Project)
MA832-6-FY (Teaching project – Mathematics for Secondary Teaching students only).
100% coursework (10% of this being for an oral presentation): there is also an interview which may affect the mark you obtain.

MA831-6-FY is a full-year project for which a student should undertake about 150 hours work. The principal aim of any project is to enable a student to gain experience of some branch of mathematics, statistics or operational research that the student would not meet in any lecture course. Subsidiary aims are that the student should gain experience of solo work involving research concerning some previously unknown topic, the production of a project report and an oral presentation and an interview.

MA830-6-AU or SP are one-term projects with half the weight of MA831-6-FY.

MA832-6-FY is a full-year project, compulsory for students taking Maths for Secondary Teaching (and not available to other students). It consists of a substantial teaching-related project. More details of this will be provided by Dr Saker.

Upon completing a project a student should

- have a good idea of the basic methods for obtaining information on a topic, including the efficient use of the library and/or other information sources
- understand how to set about the preparation of a project report, including the correct methods for referencing source material
- have experienced the difficulties of explaining the contents of a project report in a presentation and an oral interview
- in the case of an MA832 project, have studied in depth topics related to teaching of mathematics.

The full year project (MA831-6-FY, or MA832-6-FY for students doing Mathematics for Secondary Teaching) is equivalent to a 30 credit module, while a single term project (MA830) is equivalent to a 15 credit module. Each project is supervised by a member of staff. In the preparation of a project a student is expected to seek out references and read widely. This reading programme is best prepared in consultation with the project supervisor during the summer term of your second year in order that some preliminary study can take place during the summer vacation.

MA832 projects, being teaching-related, are obviously rather different. The advice provided by the Module Supervisor, Dr Saker, is of particular relevance in this module. It is possible for students who are not doing the Mathematics for Secondary Teaching degree (and thus cannot take MA832) to undertake a final year project which may involve elements of reflection on the learning process, if they are considering becoming teachers; however, in such a project, much of the effort will have to be devoted to learning new mathematics. Any student interested in this possibility should talk to Dr Georgi Grahovski, Dr Chris Saker or Dr Dan Brawn, the Projects Co-ordinators, in the first instance.

There are no rigid rules governing the length of this project report: for a 30 credit project, the range 5000-8000 words is given as a guideline but many projects are longer than this. Circumstances may dictate that a shorter or longer report is appropriate: a project based on data collection and analysis may involve fewer words, a project reviewing critically an existing area of study might justify more words. A 15 credit project might be expected to be substantially shorter but again the length will be dictated by the nature of the project. You should discuss this matter with your supervisor.

One rule is common to all project reports however: whenever the work of others is included in the report, due acknowledgement must be made of the source.

Guidelines for students undertaking projects (MA830, MA831 or MA832)

- A list of potential supervisors, their fields of interest, and some suggested titles, with some suggested reading, will be available by 1st June to students finishing the second year.
- Students undertaking a project in their final year will be expected to approach members of staff to discuss their choice of topic and agree a title. A form, available from the Departmental Office (6.320), should be completed containing the title of the project and the signature of the supervisor. This should be returned before the end of the summer term.

- Any student who is required to do a project but has not agreed a title will have one allocated from the list of topics available. The deadline is Friday of Week 2 in the final year (or of week 17 for a Spring term project), but such a late start is likely to be against a student's interest.
- Students should normally discuss their intended project with their supervisor prior to the end of the summer term of their penultimate year. They are expected to start working on their project over the summer vacation.
- During the term/s in which their projects are undertaken, students should meet with their supervisors at least every two weeks to discuss progress. Weekly meetings are preferred.
- Project reports must be submitted by Tuesday of week 18 for Autumn term projects or Tuesday of week 32 for Spring term and full year projects. A copy should be submitted via FASER: http://faser.essex.ac.uk/. Two watermarked paper copies should also be handed into the Office (6.320) by 4.00pm on that date. Students should have handed to their supervisor a first draft of their project report in time for him/her to be able to comment on the project, and for action to be taken on these comments, before the project is handed in – make a mutually convenient arrangement with your supervisor. The Department will also run Projects through the Turnitin system, which detects plagiarism.
- Students submitting a project must give an oral presentation on the project, which will count for 10% of the mark awarded, and also attend an interview on it. General guidance on how to give an oral presentation will be provided, and students are advised to discuss the detailed content of their oral presentation with their supervisors. These presentations and interviews will take place in week 22 for Autumn term projects and week 37 for Spring term and full year projects and students must be available for presentations and interviews in that week.
- Two assessors will be appointed for each project, one of whom will normally be the supervisor and one of whom will normally be the projects co-ordinator. After the assessors have independently marked the project report and independently written brief reports on the oral presentation, they will interview the student together. The purpose of the interview is to enable the assessors to satisfy themselves that the work is the candidate's own, and that their initial assessment of the quality of the project and oral presentation is correct.
- Subsequent to the interview (on which both assessors will write independent short reports) a final mark will be agreed for the project, based on the original assessments and on any modifications recommended in the light of the interview.

Guidelines for marking of project reports

It is impossible to give hard and fast rules on how a project will be marked. Instead, we indicate some of the key things that examiners will be looking for and some features which projects in the various degree classes are likely to have. In the list of key features which follows, those listed earlier tend to carry more weight.

Clarity and coherence of report. You must make it clear that you have understood the ideas involved in your subject at an appropriate level. In a pure mathematical or theoretical statistics project, this will usually involve developing the theory in a logical order, with clear definitions and convincing well-written proofs: if a proof is too hard to give, you should explain the role of the result, perhaps sketching a proof. In an overview of some topic in practical statistics or applications of mathematics, you must explain the key ideas of the practical situation, and make it clear how mathematical/statistical ideas illuminate the subject, perhaps looking at real-world data to see how the ideas work in practice. In a project involving substantial computation, you must explain clearly why your computations are of interest: your programs must be well commented and well documented, their structure must be described carefully, and it must be shown that the programs have been thoroughly tested on well-chosen examples. An historical project will explain carefully how the ideas under discussion evolved and clearly show good understanding of the relevant mathematics.

An MA832 teaching project will deal with each of the topics suggested for examination, collect some insights on it and examine them critically.

In any project, your work must be well presented. For example, there should be a clear list of contents at the beginning, you should have a summary which makes clear what you aim to investigate in your project, and some conclusions saying how far you think you succeeded. If you are pulling several diverse sources together, then you should choose (and stick to) a consistent notation. Your report should be written in good English: this requirement includes legibility, good grammar, spelling and punctuation. Any figures or diagrams must be tidy, clearly labelled and explained. You must reference your sources properly.

Difficulty, depth and breadth of mathematical ideas expressed. Your material must be of sufficient depth for a final-year student – in particular, it should have little or no overlap with material in your lecture courses. More marks will be given for understanding difficult material than for understanding material which should be routine for a final-year student. You should not just be seeking to regurgitate your sources: you should be studying them critically, (for example, there are books asserting that the earth is flat!). Original material or insights are not required, but are very welcome, and often you can at least give slightly different examples from your sources.

If you are aiming to give a broad overview of some topic, we expect you to give a balanced account of the topic, with more important topics getting more attention, but avoiding irrelevant material. If on the other hand you concentrate on some narrow (usually difficult) problem, you should still make it clear how it relates to the broader subject around it.

Initiative. We expect you to show some initiative, including looking in libraries and on the web for an appropriate (for that project) range of sources beyond those first suggested by your supervisor. It is possible to write a very good project filling in the gaps in one very tersely written source, but this will be comparatively rare. Your supervisor's marks will be influenced by the extent to which he/she feels that you have managed to work independently of him/her.

Referencing. Please note the points about referencing on page 39 of this handbook.

Some typical characteristics of projects at various levels (we again emphasise that these cannot be binding guidelines):

- A first-class project will usually be accurate and complete, demonstrating a very good level of understanding of hard material and usually going some distance beyond the sources (e.g. through extra examples, details or insights), often with some work independent of the supervisor. In addition, it must be very well organised, and should be clearly written in good English.
- An upper second-class project will usually be a well-organised and mostly accurate account of most of the expected material, with convincing evidence of a good level of understanding and a high level of accuracy. Perhaps a few examples or details go a little beyond the sources.
- A lower second-class project will usually make sensible use of a reasonable amount of relevant material, showing a reasonable level of understanding. It will be fairly clear and accurate as far as it goes. There will usually be some non-trivial omissions, some deficiencies of accuracy, and little or no sign of originality.
- A third-class project will show some understanding though this will be limited, and will often be poorly presented. There may be some quite substantial errors. Although well-intentioned, examples are likely to be confused and/or unhelpful.
- A fail level project will usually contain serious omissions and/or major errors, hardly any evidence of understanding and be poorly organised, with little evidence of serious work on the project.

The order of assessment of project reports

Each assessor should, before the oral presentation and the interview, write a report on the project. S/he shall, when assigning marks, bear in mind the degree classification standards described in this handbook and the guidelines on assessment which follow. Both assessors shall submit their reports to the Departmental Office before the presentations take place.

Both assessors shall attend the oral presentation of a candidate. If this is impossible, the Head of Department shall appoint the most suitable other assessor available for the oral. The assessors shall, in reaching their oral mark out of 10, bear in mind both the degree classification standards and the guidelines on presentations which will be issued to candidates. They shall, independently, write brief reports justifying their marks, as soon after the oral presentation as is reasonably possible.

After all four reports on the project and oral presentation have been submitted to the office, the assessors will interview each candidate. As soon as possible after the interview, each assessor shall independently write a brief report on the candidate's performance at the interview, and submit these to the office.

The assessors shall then meet to determine a final mark for the project, which they shall submit to the Exam Board together with a note of their reasons.

Should the assessors be unable to agree on a final mark after consultation with the Projects Co-ordinator, each shall return a proposed mark with reasons, and a report outlining their reasons for continuing disagreement. The External Examiner shall be asked to decide the final mark.

Listen Again

Did you miss something? Our Listen Again digital recording service lets you listen again to lectures so you grasp every detail. It's available in teaching rooms or lecture theatres where you see the sign.

listenagain.essex.ac.uk

Courses with a Year Abroad

Broaden your horizons!

There are many opportunities for Essex undergraduate students who wish to study in the United States (including Hawai'i), Australia, Canada, Europe, Hong Kong, Japan, Latin America, the Middle East, New Zealand or Russia, for one term or one year as part of their University of Essex programme of study.

We have exchange agreements with a wide variety of universities and can help students to select the most appropriate destination.

Study abroad can enhance your CV and gives you valuable experience of another culture and way of life. Spending an extended period of time in another country provides an unparalleled opportunity to see a side of life which tourists never encounter. It is also true that employers value international experience in today's global economy.

Study Abroad in the Mathematical Sciences Department is normally undertaken as the 3rd year of a 4 year degree. The marks you obtain abroad will contribute towards your final degree result only if it improves the final degree mark. There are usually no tuition charges other than what you normally pay to Essex (if you study abroad for a full year your fees will be lower than the normal rate). Also, in many cases, the cost of

living elsewhere is lower than Colchester, so you should not assume that study abroad is an expensive proposition.

Any student interested in applying should consult the Departmental Study Abroad Officer (Dr Xinan Yang) in the first instance, for approval in principle.

For further information, contact the Essex Abroad Office, Square 2 (next to the Employability and Careers Centre), email: saoadmin@essex.ac.uk

www.essex.ac.uk/essexabroad

Four year versions are available for all degrees offered by the Department of Mathematical Sciences (with the exception of Management, Maths and Economics). The third year is taken abroad and the final year is taken at Essex. To learn more about Study Abroad opportunities, talk to Dr Yang in the first instance.

Employability

Careers Advice

The Department's Employability Officers in 2015/16 are Prof Edd Codling and Dr Spyros Vrontos. The Careers Advisor for Mathematical Sciences in the Employability and Careers Centre is Dee Hardcastle. You should also be aware of the Employability and Careers Centre website www.essex.ac.uk/careers. The Departmental Employability Officers will be able to tell you about contacts in the Centre, and will inform students from time to time of forthcoming careers events. You should be aware that most of you will have to look for jobs eventually, and that it is highly desirable to at least start thinking about this early in your degree. The Maths Careers and Employability module should help you do this. There is also a frontrunner placement scheme, an internship scheme and opportunities for working and studying abroad run by the University. For more information see: http://www.essex.ac.uk/careers/about_us/default.aspx

Degree courses with a placement year

A number of our degree courses are now available as four-year degrees, where the third year of study is spent undertaking a placement. A work placement also allows you to learn more about a particular sector, company or job role, and apply your academic knowledge in a practical working environment, giving you ideas of what you want to do as a future career. During the placement your experience and study combine into an integrated package where your practical work and academic study enhance each other. You can show employers that you can use your subject understanding to add commercial value, and demonstrate you can deliver on challenging projects that meet client demands. See http://www.essex.ac.uk/careers/placements/ for more information, including current placement vacancies and how the University supports you while you're on a placement.

Student representation, Student Staff Liaison Committee, Student Assessment of Modules and Teaching and Student Surveys

Student feedback is a vital part of the University's approach to quality assurance and enhancement. It is therefore important that you are given the opportunity to feedback and that you take the time to feedback to the University.

You can do this in a number of ways:

1. You can contact (or be elected as) a **student representative** who represents the voice of fellow students in departmental Student Staff Liaison Committees (SSLCs) and other University level committees.
2. You can find more information on the Students' Union website www.essexstudent.com/representation/coursereps/ and the University's policy here: www.essex.ac.uk/quality/student_representation/student_rep.asp.
3. You can find out information about SSLCs here: www.essex.ac.uk/quality/student_representation/sslc.asp.

Every year, we will ask you to complete the **Student Assessment of Module and Teaching (SAMT).** This survey will be summarised and discussed by SSLC and will inform reports written by us for central University committees as part of our quality assurance processes.

Student satisfaction surveys enable the University to gauge overall satisfaction amongst students. When the results have been reviewed and analysed, the University can then enhance your experience of learning at Essex. You will probably be aware of the National Student Survey (NSS) for final year students which feeds into university league tables. We also run our own Student Satisfaction Survey (SSS) which tells us on a local level how we're doing and where we can make improvements. It's for all undergraduate students not covered by the NSS. The surveys are run online and you will receive a link to the survey via email.

Information for disabled students

We would encourage all new students with a disability, long term medical condition, specific learning difficulty or mental health difficulty to disclose and register with the disability service so that we can plan how best to support you in your studies.

You can find out about the academic and learning support we offer here:

www.essex.ac.uk/students/disability/academic

UK students may be eligible for a Disabled Students' Allowance grant. Go here for more information including application forms and key changes for 2016-17 www.essex.ac.uk/students/disability/funding

Information for international students

We are proud to be a global community and we recognise that living and studying in the UK may be very different from your own country.

Essex has a wide range of support covering academic and health and wellbeing issues. Our friendly and professional staff will be able to guide, give advice and assist you during your time at Essex.

You can find helpful information here - www.essex.ac.uk/students/new/international/default.

If you are studying on a **Tier 4 visa,** don't forget to read section on **Tier 4 Information** in this handbook which has further information and links.

Mature and part-time students

As a mature student you'll be in very good company – around 37% of our students are mature students.

We appreciate that studying as a mature student can present challenges. This is particularly true if this is your first experience of higher education and you have other commitments and responsibilities to meet such as work and family. We want you to be aware of the support available so that you can make the most of your time at Essex.

You can find more information here: www.essex.ac.uk/life/students/mature

Library Services

At our Colchester Campus, the **Albert Sloman Library** on Square 5 has long opening hours, a new extension and 24 hours a day access in the weeks leading up to exam time, the library has a wide range of learning resources, including books, journals, British and foreign-language newspapers, databases, microfilms and audio-visual materials. There are quiet group study areas and networked PCs on all floors.

libwww.essex.ac.uk

Attendance monitoring (Count-me-in) and absence from sessions

Your attendance at lectures and classes has a significant impact on how successful you are in your studies. At Essex, we monitor attendance so we can identify students who may need guidance and support.

You'll need to **record your attendance** at teaching events using your registration card and the electronic reader in the teaching room. Just 'tap in' for every timetabled teaching event you attend. Your tap will count from 15mins before the start time and up to 15mins after the start time on your timetable.

You should not tap in for someone who is not attending the class; and also you should not tap in if you then immediately leave the teaching event. This is breaking the Student Code of Conduct and you could be fined.

Attending is especially important if you are here on a Tier 4 visa.

If you **lose your card** or it is **faulty**, go to the Student Services Hub to get a new card (a small fee is applicable for lost cards).

If you need to **report an absence** from a teaching event you should do so by completing the **notified absence** on MyEssex. We will consider the reasons and may record it as an **authorised absence**. Be aware that you may need to **provide evidence**, including medical evidence if relevant. Please see www.essex.ac.uk/see/attendance for acceptable reasons to be absent.

You will be able to **check your attendance record**, and notified absences on **MyEssex**. **We are introducing this by department during the year.**

Please contact your Personal Tutor, department staff or the Student Services Hub for advice and support, particularly if you are going to be absent for several weeks.

For more information on attendance, and for links to forms and guidelines visit: www.essex.ac.uk/see/attendance

University of Essex

Assessment

Rules of Assessment www.essex.ac.uk/students/exams-and-coursework/ppg/general/assess-rules.aspx

The Rules of Assessment are the rules, principles and frameworks which the University uses to calculate your course progression and final results. These decisions are made by the Board of Examiners, which meets at the end of the Summer Term. The Board of Examiners use the Rules of Assessment to decide:

- whether you can be awarded credit for the modules you have studied
- whether you have done enough to move on to the next stage of your course
- whether you have done enough to pass your course
- what classification you will receive
- what reassessment you could be offered
- whether you must withdraw from your course, with or without and exit award

Exit Awards

If you decide to withdraw from your course before you finish, or you fail too many credits to be awarded a Bachelor's degree, you may be awarded a qualification at a lower level, if appropriate.

Extenuating Circumstances, withdrawing and intermitting

Extenuating circumstances are circumstances beyond your control which cause you to perform less well in your coursework or examinations than you might have expected. In general, extenuating circumstances will be of a medical or personal nature that affect you for any significant period of time and/or during the examination period.

You need to submit your form by the deadline, see: www.essex.ac.uk/students/exams-and-coursework/ext-circ.aspx

You will **not** get extra marks if you hand in an extenuating circumstances form. Boards of Examiners use other methods to take into account extenuating circumstances, such as permitting further reassessment opportunities for uncapped marks.

Please read the guidance on extenuating circumstances very carefully before submitting your form and evidence. Please seek advice from the Students' Union Advice Centre, www.essexstudent.com/services/advice_centre/, or the Student Services Hub, www.essex.ac.uk/students/contact/default.aspx, if you need any guidance.

Intermitting is a temporary withdrawal or leave of absence from your studies. Normally this is for reasons beyond your control such as health or personal problems. An intermission is approved for a defined period of time after which you would return to your studies. This is a formal process which needs formal approval.

If you are thinking about intermitting, there are some practical things you need to consider such as academic issues, for example the impact on your module choices and maximum period of study, accommodation, financial matters including the impact on your tuition fees and visas if you have a student or Tier 4 visa.

If you decide to intermit you will no longer be entitled to attend tuition but you will still have access to your Essex email account which we will use to communicate with you and some library access.

Please see www.essex.ac.uk/students/course-admin/intermission for guidance on intermission.

You should read the guidance on intermitting very carefully before submitting your form, at: www.essex.ac.uk/students/course-admin/intermission. You are strongly advised to discuss intermitting with your department.

You may experience doubts about continuing on your course at some point during your studies. **Withdrawing from your course** is the formal process for permanently leaving your programme of study and the University. There are plenty of people at Essex who can provide you with information, advice, guidance and support to help you to make a decision that's right for you. For instance, you might find that taking a temporary break from your studies (intermitting) will enable you to resolve the current situation that is causing you to think about leaving. Also, please note that if you are thinking about withdrawing from the University, there are some practical things you need to consider: accommodation, financial matters including your tuition fees, visas if you have a student or Tier 4 visa, and careers advice. Who to contact for advice, the practical matters that you need to consider, your options, and the withdrawal process are all detailed here: http://www.essex.ac.uk/students/course-admin/withdrawing.aspx

Re-marking of coursework

You have the right to request a re-mark of your coursework under certain circumstances which your department will advise you on. The University Marking Policy can be found at: www.essex.ac.uk/quality/university_policies/examination_and_assessment/marking_policy. You will need to complete a form and be aware that marks can go down as well as up.

Moderation, second marking policies and External Examiners

The University policy on **moderation** is part of the Marking Policy. When work is moderated, it means that a second member of academic staff takes a random sample of the work for a particular assessment and reviews the marks given. A moderator would not change the individual marks for the work, but would liaise with the first marker if he or she believed that the marks were not at the correct level, with a view to the first marker reviewing and adjusting the marking.

Second marking is where a second marker marks the work but has access to the first marker's marks and/or comments. Where two members of staff are involved in marking a piece of work, the markers should make every effort to agree a mark, rather than merely averaging the two marks. Departments must keep a full record of both individual and agreed marks for all work which is second or double marked.

External Examiners are usually academics from other universities but may be from industry, business or the profession depending on the requirements of the course. They give an impartial view of the course and independent advice to ensure that courses at the University meet the academic standards expected across UK higher education. External Examiners write reports on the courses and modules they are responsible for which are made available to you via your department. You can find the name and institution of the External Examiner for your course and modules by looking on the Programme Specifications Catalogue and the Module Directory. You can find out more about how the University uses External Examiners at: www.essex.ac.uk/quality/external_examiners

Please note: you may not contact External Examiners directly under any circumstances. If you have any concerns about the quality and standards of your course, please contact your student rep, your Head of Department or the Students' Union.

Appeals and complaints

Academic Appeals Procedure

www.essex.ac.uk/see/appeals-ug

Following the release of your end of year results, you are eligible to submit a formal appeal against the **progress decision** of the Board of Examiners that have made the decision regarding your academic progress. Formal appeals can take up to 6 weeks to be considered, however, if you are not in the final year of your programme of study, you can "Consult the Dean" before submitting a formal appeal. The Dean can take action and change the original progress decision, and can also consider requests from students who want to repeat the year rather than take reassessment across the summer. Please visit the Appeals webpage for information regarding the deadline by which you must "Consult the Dean" and/or submit your formal appeal by.

As with all appeals, you would be required to provide any relevant evidence that substantiate your claims. The main legitimate grounds for appeal are any extenuating circumstances that you could not make the Board of Examiners' aware of in advance, or procedural irregularities in the conduct of the Board of Examiners (including alleged administrative error) of such a nature as to cause reasonable doubt as to whether the result might have been different had they not occurred. Other grounds will be considered on their merits but **you may not appeal against academic judgement**. This means that you can't appeal against the marks you have been given by a Board of Examiners without evidence of extenuating circumstances or procedural irregularity.

The Appeals Procedure gives examples of grounds for appeal which are not considered legitimate. You should read these before submitting an appeal. You may also appeal against the outcome of academic offences committees and progress committees under certain circumstances.

We strongly advise all students thinking about making an appeal to contact the Students' Union Advice Centre. Please visit www.essexstudent.com/advice for more information.

The Complaints Procedure:

The University is a large community engaged in many activities, both academic and non-academic. If you feel dissatisfied with some aspect of your dealings with the University, it is important that the issue is dealt with constructively and as quickly as possible without risk of disadvantage or recrimination. You can find the complaints procedure and the forms here:

www.essex.ac.uk/see/complaints

Academic Offences Policy

www.essex.ac.uk/see/academic-offence

All students are expected to behave with honesty and integrity in relation to coursework, examinations and other assessed work. If you do not do so, you may be found to have committed an academic offence. The University takes academic offences very seriously.

Academic offences can include plagiarism, false authorship, collusion, falsifying data or evidence, unethical research behaviour and cheating in an examination (this list is not exhaustive). Academic offences can be committed as a result of negligence, meaning that you may be found guilty of an academic offence even if you didn't intend to commit one.

It is your responsibility to make yourself aware of the Academic Offences Procedure, the regulations governing examinations, and how to correctly reference and cite the work of others. If you aren't sure what referencing system you should use, you should ask your department and also refer to **8: Referencing and good academic practice** in this handbook.

If an allegation of an academic offence is made against you, we strongly advise contacting the Students' Union Advice Centre. Please visit www.essexstudent.com/advice for more information.

Ethics

All research involving human participants, whether undertaken by the University's staff or students, must undergo an ethics review and ethical approval must be obtained before it commences. You can find our Guidelines for Ethical Approval of Research Involving Human Participants here - www.essex.ac.uk/reo/governance/human.aspx

- along with the Ethical Approval application form.

'Human participants' are defined as including living human beings, human beings who have recently died (cadavers, human remains and body parts), embryos and foetuses, human tissue and bodily fluids, and personal data and records (such as, but not restricted to medical, genetic, financial, personnel, criminal or administrative records and test results including scholastic achievements).'

Coursework

Assignment and essay length

Please refer to the module directory (http://www.essex.ac.uk/modules/) for details of the coursework elements of your modules. Details of the coursework components will be provided by the relevant lecturers.

Coursework submission

Coursework components must be submitted in the manner prescribed by the lecturer by the deadline stated in the Undergraduate Coursework Deadlines document which is published online in the "Coursework and Exams" section of the Current Students, Information for Students, Maths web pages www.essex.ac.uk/maths/current/default.aspx. You may have to fill in a cover sheet, which may vary from module to module. For most modules students will be asked to scan and upload their work to the online Feedback, Assessment & Submission Electronic Repository (FASER): http://faser.essex.ac.uk/,and then submit the hard copy to the lockers provided outside 6.311. This is mostly the case for summative coursework (coursework that counts towards the final mark) but for formative coursework there may be less formal submission procedures.

Return of coursework policy

The return of assessed work should normally be no more than four weeks, less wherever possible and that this should apply to vacation periods as well as term-time (i.e. coursework handed in at the end of term should be returned at the start of the following term, not four weeks into it). The details of how it will be returned will be announced by individual lecturers. Note that often assignments have to be retained for inspection by External Examiners and quality assurance procedures, but students will have an opportunity to go over their work with a member of academic staff.

The nature of feedback provided on coursework varies with the character of the assignments concerned. On coursework consisting of tests or solution of examples, in addition to being told the mark they have obtained, students may request to see their scripts afterwards, on which individual comments will have been made. On more elaborate coursework (projects for example, or reports on computer-based investigations), the lecturer or assessor may provide a general report on his or her perception of what was well done and ways in which typical submissions might be improved.

Late coursework policy

There is a single policy across the University for the late submission of coursework. All coursework submitted after the deadline will receive a mark of zero unless satisfactory evidence is provided of extenuating circumstances that indicate you were unable to submit the work by the deadline.
No extensions will be granted in advance so you should familiarise yourself with the policy and arrangements for late submission of work.
For work submitted after a mark of zero is awarded, marking is at the discretion of the department unless there are extenuating circumstances, which have been accepted by either the Late Submissions Committee or the Extenuating Circumstances Committee, and a model answer has not been circulated. Coursework may otherwise be marked for formative purposes (that is, no formal marks will be awarded). See https://www.essex.ac.uk/students/exams-and-coursework/late-submission.aspx for more information on this policy and how to make a late submission request.

Essay writing support

Advice on essay writing is given in MA224 (The Laws of Physics) and University-wide advice on this may be found at https://www.essex.ac.uk/students/study-resources/tdc/writing/modules.aspx. The University Talent and Development Centre also provides helpful support:

https://www.essex.ac.uk/students/study-resources/tdc/default.aspx.

Anonymous marking in coursework policy

Effective feedback helps students to understand the mark given for a particular piece of work, and helps students to reflect on their own learning and to achieve better marks in future pieces of work. A variety of methods of providing feedback are used across the University, and departments chose the most appropriate for their courses and modules. The University does not have an institution-wide approach to anonymous marking in coursework. Departments decide whether to use anonymous marking in coursework or not.

This department does not operate a system of anonymous marking. We believe that marking provides an important point of contact with the student, through which individualised and personal forms of encouragement and involvement can be fostered. We believe that the quality of formative feedback is enhanced when the marker knows the student, and current work can be seen in the context of earlier

assignments and classroom interactions. The comments we provide in coursework seek to encourage students in areas where they have done have done well and to highlight what they could do better. We take great care to mark fairly and effectively and we feel strongly that our ability to do this is improved through knowing our students.

If you take optional modules outside your home department, you should make sure you are aware of the policy on whether coursework is marked anonymously or not, and how to submit coursework.

Reassessment of coursework

The need to reassess coursework only arises when a student's overall mark has fallen short of the required minimum. More details of the nature of coursework reassessment will be provided by lecturers on request.

	ORIGINAL ASSESSMENT	REASSESSMENT
MA101	15% (10% MapleTA assignments, 5% extended MapleTA assignment)	Resit exam mark of at least 40. Resit counts for 100%.
MA105	50% (5 labs 4% each, presentation 5%, essay 25%)	50% (1 essay)
MA108	20% (4 pieces of homework)	Resit exam mark of at least 40. Resit counts for 100%.
MA114	25% (MapleTA asisgnments and end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA125	50% (10 problem sheets)	Resit exam mark of at least 40. Resit counts for 100%.
MA126	20% (problem sheets and end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA181	25% (10% homeworks, 15% test)	Resit exam mark of at least 40. Resit counts for 100%.
MA182	25% (10% homeworks, 15% test)	Resit exam mark of at least 40. Resit counts for 100%.
MA199	100% coursework (portfolio)	Resubmission of portfolio the following year (100%).
MA201	15% (5% 10 mini tests, 10% test)	Resit exam mark of at least 40. Resit counts for 100%.
MA203	20% (5% 10 mini tests, 10% test, 5% essay)	Resit exam mark of at least 40. Resit counts for 100%.
MA205	20% (4 homeworks)	Resit exam mark of at least 40. Resit counts for 100%.
MA206	20% (1 test)	Resit exam mark of at least 40. Resit counts for 100%.
MA207	20% (group assignment)	PLAN B
MA209	30% (5 assignments)	PLAN B
MA210	20% coursework (10% homework, 10% test)	Resit exam mark of at least 40. Resit counts for 100%.
MA211	10% (end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA212	25% (9 coursework tests)	Resit exam mark of at least 40. Resit counts for 100%.
MA216	20% (group assignment)	Resit exam mark of at least 40. Resit counts for 100%.
MA224	50% (30% essay and 20% test)	50% (2 essays)
MA225	n/a (100% exam)	Resit exam mark of at least 40. Resit counts for 100%.
BE310	40% (2 assignments)	PLAN B
MA302	20% (2 tests)	Resit exam mark of at least 40. Resit counts for 100%.
MA303	20% (2 tests)	Resit exam mark of at least 40. Resit counts for 100%.
MA305	20% (3 problem sheets, 1 lab report)	Resit exam mark of at least 40. Resit counts for 100%.
MA306	20% (5 homeworks)	Resit exam mark of at least 40. Resit counts for 100%.
MA311	20% (problem sheets and end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA312	25% (9 coursework tests)	Resit exam mark of at least 40. Resit counts for 100%.
MA314	20% (1 test and 5 formative homeworks)	Resit exam mark of at least 40. Resit counts for 100%.
MA315	0% (formative assignments)	Resit exam mark of at least 40. Resit counts for 100%.

MA317	20% (group project/presentation)	Resit exam mark of at least 40. Resit counts for 100%.
MA318	20% (end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA319	15% (end of term test)	Resit exam mark of at least 40. Resit counts for 100%.
MA320	25% (test and 5 formative homeworks)	Resit exam mark of at least 40. Resit counts for 100%.
MA321	20% (group project/presentation)	Resit exam mark of at least 40. Resit counts for 100%.
MA322	20% (R project)	Resit exam mark of at least 40. Resit counts for 100%.
MA323	20% (2 tests)	Resit exam mark of at least 40. Resit counts for 100%.
MA333	10% (critical essay)	Resit exam mark of at least 40. Resit counts for 100%.
MA830/ MA831/ MA832	10% Presentation, 90% Project report	Capped resubmission of project report in August/September counting for 100%

PLAN B

This is implemented when the nature of the coursework (either too many components, or an exam-like end-of-term test, or group work) makes it infeasible or inappropriate to consider its replication.

The plan is simple: retake the examination to achieve some specified target mark (normally the mark that would raise the overall module aggregate to the required pass level).

If the Board of Examiners has required you to complete essays or assignments over the vacation, the Registry will send you a letter by email with further information. Please check your Essex email account regularly once your results have been published. The Department will send you details of the assignments which you are required to undertake. If you haven't received anything within three weeks of the results being published, you must contact the Department or the Registry.

Group work and performance

Discussing problems with others is often a good way of learning mathematics. You can often find a quiet room around the University in which to discuss problems (e.g. the Departmental Common Room 6.314). You are encouraged to work in this way (provided you remember you will have to sit the exams at the end of the year on your own).

For work which does not actually count towards the final mark for a module, we have (again subject to remembering you will be on your own in the exam at the end of the year!) no objection to joint work – indeed this can be educationally beneficial. However we object strongly to simple copying. This is a waste of your time and also that of the lecturer who has to mark the copied work. Marks of zero may be awarded if a lecturer has evidence of copying. Though such work does not count for formal assessment, the routine assignments are there to provide you with the practice that is an essential part of the learning of Mathematics.

In modules that have a coursework component which counts towards the module result, the coursework may be either individual or in groups (where you will be specifically assigned to a group with the requirement that your group produces a single piece of work). There are several objectives here, one of which is to provide preparation for careers in which good teamwork is essential. Where there is coursework, the final work must be yours (or the group's) and yours (or the group's) alone, though discussion with others about ideas may still be helpful. You must reference any help received.

Students should be aware that the policy on collaboration in coursework of other Departments may well differ from that in Mathematical Sciences: this applies, for example, to computing modules. It is extremely important that you stick to the rules of the Department running a particular module, as otherwise you may well receive a mark of zero for that piece of coursework. If in any doubt, ask the lecturer what the rules are for that piece of coursework before starting work on it.

Examinations

Examination regulations

The General Regulations which govern examinations can be found via the website here www.essex.ac.uk/about/governance/regulations/affairs.aspx#exams.

Attendance at examinations is **compulsory**. For exams that are more than an hour long, you will not be allowed to enter the examination room if you arrive later than 55 minutes after the start of the exam. If your exam is only an hour long, you will only be admitted up to ten minutes after the start of the exam.

Access to exam scripts

If you want to see your exam script, you should normally make the request within four weeks after the exam to the Department which is responsible for that module. The Department should either: let you see the script in the presence of one of the staff responsible for teaching the module *or* give you a copy or summary of the examiners' comments on your performance. You can find further information about Assessment Policies for Undergraduate and Taught Postgraduate Awards at: www.essex.ac.uk/quality/university_policies/default.asp

Calculators

If you are allowed to use a calculator in your exam, the **only** models you are permitted to use are the **Casio FX-83GT PLUS** or the **Casio FX-85GT PLUS**.

The only exception is for certain **Finance** exams that require a **financial** calculator, in which case you may use the **Hewlett Packard 12c** (all variants) or the **Texas Instruments BAII Plus** (including the BAII Plus Professional).

A limited number of the permitted calculators will be available to borrow **on the day of your exam** from the Exams Office on a first-come, first-served basis, on production of your registration card.

General information about summer exams and exam results

You can find your personalised exam timetable online at: www.essex.ac.uk/examtimes/

You must bring your registration card and exam entry form with you to the exam. You will not be allowed entry without them. Remember to check your exam entry form carefully and contact the Examinations Office if there are any errors.

You can download a guide to examinations, and watch a short video at www.essex.ac.uk/students/exams-and-coursework/default

You will receive an email to your Essex email account as soon as your results are published. You can find the publication schedule at: http://www.essex.ac.uk/students/exams-and-coursework/schedule

Anonymous marking policy in examinations

All formal examinations at the University of Essex are marked anonymously.

Reassessment in examinations

You can find information relating to resitting exams at: www.essex.ac.uk/students/exams-and-coursework/resits.

Remember that reassessment in examinations (and coursework) carries a fee.

Referencing, plagiarism and good academic practice

Referencing

Drawing on the wide range of reading you do around your subject area, and demonstrating how you have used this to develop your knowledge and form you own views, is a key aspect of your coursework. It's essential that you reference your source materials so it's clear where the information has come from, and to avoid any misunderstanding over whether you are presenting ideas as your own.

Respecting authorship through good academic practice is one of the keys to academic integrity, and a key value of higher education in the United Kingdom.

The Talent Development Centre provides online courses and guides to help you fully understand what is required from you. You can find out about the full range of workshops and resources that are available to you by visiting www.essex.ac.uk/see/tdc. You can also complete the online Academic Integrity course at moodle.essex.ac.uk/course.

You should read the sections of this handbook which refer to referencing, coursework and examinations very carefully. Failure to understand the academic conventions may result in you being found to have committed an academic offence (see section **4.6 Academic Offences Procedure**).

Remember, if you have any questions about referencing you can ask our academic staff, or staff in the Talent Development Centre.

Guide to Referencing

It is very important that you (a) do not represent the work of other people you are using as your own and (b) allow people who want to check up on the details of what you are saying to find the sources of information you have used. Under (a), if you are quoting some other person's words, you must ensure that they are in inverted commas and clearly indicated as a text taken from J. Smith's (or whatever) book. The University has plagiarism detection software (Turnitin) which we run on essays and projects. We do appreciate that in e.g. a pure mathematics project, everyone's definition of a group (say) is essentially identical, and you need not worry too much about giving definitions identical to everyone else: but even if you are writing out a proof

of a result based on somebody else's, you should be able to at least somewhat rephrase the ideas in your own words. Remember you should aim for a consistent notation through your project.

Regarding (b), there are various ways of referencing and we do not want to be too dirigiste about imposing a system. However you should ensure that for every source (book, academic paper, website, communication from a supervisor or somebody else, etc.) you give some reference for it, which gives for each source the author(s)' names, the title of the work, details of where and when published. One good way to do this is to have the various sources listed in your bibliography, preferably in alphabetical order by surname of first author, with numbers next to them, and then refer to these numbers in square brackets in the text. When referring to a particular theorem in a work, be specific - "(see [3], Theorem 20)" rather than just "(see [3])". For example you could have in your bibliography:

1] R. Albert, H. Jeong, A. Barabási. Diameter of the world wide web. Nature. Vol. 401 (1999), pages 130-131.

[2] A. Barabasi and E. Bonabeau. Scale-free networks. Scientific American. Vol. 288 (2003), pages 50-59.

[3] McGinty, A. http://www.neasden.ac.uk/mcginty/notesongrouptheory/

etc. You could then refer to these in your text as follows (e.g.):

We need to investigate the order of the subgroups of G. By Lagrange's Theorem (see [3], Theorem 12) they divide the order of G. By([5], Theorem 25) they cannot be equal to the order of G divided by 2: thus they are all of order at most the order of G over 3. Subgroups of order |G|/3 are possible, but those of order $|G|/6$ are not by ([3], Proposition 44).

We appreciate that often it is hard to attribute an author to a website or similar, use your judgement. If in doubt, talk to your supervisor.

Students are required to reference their sources properly, and failure to do so can lead to an allegation of an academic offence. When submitting any piece of work (e.g. essay, report, dissertation, or thesis) you will be required to acknowledge any assistance received or any use of the work of others.

What do we mean by academic offences in examinations and coursework?

An academic offence in examinations includes copying the work of another student or communicating with another student in an examination; and introducing any written, printed or electronically stored information into an examination, other than material expressly permitted in the instructions for that examination.

An academic offence in coursework includes using the work of others (whether written, printed or some other form) without acknowledgement, whether this has been the result of negligence or of intention to deceive. It is therefore very important that you learn how to reference your work properly, and that you familiarise yourself with your departmental guidelines on referencing. If, after having read the guidelines, you are still unclear about referencing, you must talk to your lecturer before you submit your assignment, and/or contact the University's Talent and Development Centre for support. Ignorance of the regulations will not be accepted as a defence against an allegation of an academic offence or negligence in referencing.

Repeated work

You may also be accused of an academic offence if you repeat work previously submitted for an assessed assignment without full acknowledgement of the extent to which that previous work has been used; in other words, if you hand in the same or a very similar essay to one that you have already submitted. You should note that it is also an offence for a student knowingly to assist another student to commit an academic offence, whether in an examination, or in any other piece of work.

Group work

Sometimes students who have been working together end up submitting almost identical work and are accused of an academic offence. While we do not want to dissuade you from working with or discussing your work with another student, you must be careful that you do not collaborate too closely, and it would be wise to seek advice from your lecturers on the limits of collaboration before you submit your work.

Read the rules

Details of the University's Regulations relating to these and other academic offences and the procedure for dealing with allegations of academic offences are published in the University Regulations, which can be found here: http://www.essex.ac.uk/about/governance/regulations/default.aspx. Further guidance on how you can avoid plagiarism is also available online at www.essex.ac.uk/plagiarism and includes definitions of plagiarism, an online test and some common mistakes. Students should be aware that all work submitted electronically will be screened via the Turnitin Plagiarism software. Please also see page 38 for a link to the University's Academic Offences policy.

Plagiarism, academic conduct and responsibilities relating to plagiarism

Plagiarism

Plagiarism is to steal ideas, verbalisations or writings from another person without correct acknowledgement, presenting these as your own work. It also includes utilising your own previous assessment submissions, without correct identification of such (which is referred to as self-plagiarism). Any source you access and utilise when preparing your work (book, journal article, newspaper article, internet page, podcast etc.) must be referenced appropriately to avoid plagiarism – ignorance of correct referencing techniques is inexcusable.

You may also be accused of assisting plagiarism if you lend your work to another student who then copies your text. Plagiarism is indefensible and will not be tolerated in any form within the University of Essex. This Academic Offence carries severe penalties, and you may be withdrawn from your programme. All students should view the University of Essex plagiarism online tutorial at: www.essex.ac.uk/plagiarism/index.html to familiarise yourself with this issue. If you are concerned about plagiarism, you should talk with your Tutor.

How to avoid plagiarism

To avoid plagiarism give yourself enough time to plan, draft, write, edit and proof-read your work. Make sure you print or save full details of all sources, so that you can reference them easily once you have used them. Do not copy and paste large chunks of text from the internet – look at the source, read it critically, identify the main themes, and then paraphrase or present as a direct quote. N.B. paraphrasing does not mean changing the odd word within a sentence. You need to re-phrase the entire sentence in your own words, thus demonstrating your understanding.

Academic conduct – personal recordings of teaching or other meetings

A student may not make a personal recording of a teaching event, supervisory meeting, oral examination or other formal meeting or committee which considers the student's academic progress or performance without the permission of all other individuals present. If this permission is granted, the recording may be made for the personal use of the student only, in support of their studies and learning. The recording must not be made publicly available or shared for other purposes without the consent of those present. Disabled students who have difficulty with note-taking are encouraged to contact Student Support for further information on when recording is permissible and other access strategies.

Responsibilities relating to plagiarism

1. Plagiarism

- Plagiarism is cheating
- Submission of work that is plagiarised is unacceptable
- Poor academic practice with regard to referencing, which may be considered as contributing to plagiarism, is also unacceptable

2. Students' responsibility

- To appraise him/herself of the nature of plagiarism
- To appraise him/herself of the academic offences policy of the University of Essex
- To submit work that does not contain plagiarism
- To utilise plagiarism checking systems where available

3. Our Department's responsibility

- To ensure that all Department staff have a shared understanding of the nature of plagiarism and action to be taken in the event of plagiarism being uncovered (Head of Department)
- For 'standalone' modules (regardless of whether they form part of a programme) - to include within each module induction, accurate information regarding plagiarism (Module Leader)
- For modules studied as components of a single programme – to include within the programme induction, accurate information regarding plagiarism and supporting information within the Virtual Learning Environment. A record of attendance at plagiarism induction will be maintained (Programme Leader).
- To include supporting information and links on our Department website and on our Department's Moodle Study Skills resource (Head of Department)
- To advise all students that they should expect that submissions for assessment will be subjected to a plagiarism check (TLQE/Programme Leads)
- To refer plagiarism to Head of Department in a transparently fair and equitable manner (all markers)
- To remind students on commencement of each term of their responsibilities regarding plagiarism (Head of Department)
- To transparently apply University Rules regarding plagiarism (Head of Department)

4. The University's responsibility

- To apply the Academic Offences Policy universally and transparently
- To provide equitable access to plagiarism checker systems

Practicalities: Getting started and IT matters

Registration, enrolling and transcripts

All new and returning students must **register** at the start of each academic year. The full process for new students includes activating your student record for the academic year, getting your email account, gaining access to IT and library services, and enrolment on modules and confirming your contact details. As your studies draw to a close, once your exam board has met, it takes up to five working days for your results to be confirmed. The Assessment Team will publish your results and update your record. For graduating students, Degree Certificates will be provided by the Graduation Team either for collection at Graduation, or they will be sent afterwards for students who do not attend the Graduation event. For more about registration, visit our student webpages.
www.essex.ac.uk/students/new/registration
www.essex.ac.uk/students/graduation/award-documents

Find Your Way and room numbering system

Find Your Way is our interactive campus map app. Download it to help you find any location on campus and get directions quickly and easily. There's also a handy web version http://findyourway.essex.ac.uk

If you're looking for a specific room, follow these rules.

If the room number has three parts and the first is alphabetical eg TC.1.20 then the room is in one of the outer buildings. The format is building.floor.room. The first part indicates the building - "TC" is the Teaching Centre and "LH" is the Ivor Crewe Lecture Hall. The second part tells you the floor and the third the room number. For example, LH.1.12 is Ivor Crewe Lecture Hall, floor 1, room 12.

If the number has three parts and the first contains numbers and letters eg 5N.7.16, then the room is in square 4 or 5. The format is entrance.floor.room. The first part tells you the square and corner (eg 4S is the south corner of square 4), which matches the labels on the entrances (eg door 4NW is next to The Store). The second part is the floor and the third part the room. For example, 5NW.6.12 is in the north-west (NW) corner of Square 5 (entrance "5NW"), floor 6, room 12.

If the number has two elements and the second element has three digits eg 4.722, the room is in the Maths/Social Studies/Rab Butler/Square 1 building area. The first number shows the floor and the last three digits show the room number.

Also… if the last three digits are 700-799 the room is off Square 1, and if the last three digits are 500-599 the room is in the Square 2 area (Computer Science). For example, 5.512 is room 512, floor 5.
www.essex.ac.uk/about/colchester/documents/location_of_teaching_rooms.pdf

University of Essex

IT support, wifi, email account, free MS office, computer labs, M:drive

Visit our website to set up your **IT account and password**. Once you're set up, you can access email, log on to lab computers, connect to eduroam wi-fi and much more. www.essex.ac.uk/it/getaccount

You must change your password within four weeks of starting, and then once every four months after that. The easiest way to **change your password** is online at: www.essex.ac.uk/password.

As part of your Office 365 email account you get unlimited cloud storage space for all your documents with OneDrive. OneDrive lets you create, edit, and share documents online. You also get at least 300 MB of local storage, known as your M: drive. You can access this by going to 'My Documents' on any lab computer.

Visit the IT Services website for helpful information, including how-to guides, answers to frequently asked questions, and links to video screencasts. www.essex.ac.uk/it

If you can't find what you're looking for, or if you need to talk to someone, then you can get help from the IT Helpdesk in the Silberrad Student Centre. Open Monday to Thursday 8.30am to 6.00pm, and Friday 8.30am to 5.45pm.

You can also download Microsoft Office 365, for free. You can install it for free on up to five computers, and up to five mobile devices. www.essex.ac.uk/see/software

If you need to use a **computer on campus** our computer labs are the perfect place to study or work. Many labs stay open until late and some are open 24/7. For computer lab locations, opening hours and real-time availability visit: www.essex.ac.uk/it/computers/labs.

Tier 4 students

If you are a citizen of a country that is not part of the European Economic Area or Switzerland it is likely that you will require a **visa** to enter or remain in the UK to study. The type of visa you need to apply for will depend on your personal circumstances, proposed study and where you are applying from. Find out more on the University's website at: www.essex.ac.uk/immigration/

On-campus facilities

There is a broad range of **facilities** to support your living and learning experience at our Colchester Campus – including study-based services like the IT helpdesk and group study pods, but also various food and drink venues, two banks, a general store run by the Students' Union, a printing and copy centre, market stalls each Thursday, a Post Office, launderettes, and much, much more. Full details on all on-campus facilities feature on our student webpages and in the campus guide you received with your welcome information when you joined us as a student member.
www.essex.ac.uk/students
www.essex.ac.uk/welcome

Graduation

The culmination of all your hard work, Graduation ceremonies take place at our Colchester Campus each July in the Ivor Crewe Lecture Hall. All eligible students studying at our Colchester, Loughton and Southend Campuses will be invited to attend. For more information visit our graduation pages:
www.essex.ac.uk/students/graduation/default.aspx

Skills, Employability and Experience

Employability and Careers Centre

Our careers specialists can give you valuable advice throughout your time at Essex and beyond. We offer one-to-one advice and guidance, job-hunting workshops, CV and job application reviews, and online access to graduate and part-time job vacancies.
www.essex.ac.uk/careers

Learning Languages at Essex

Learn a language at Essex to increase your global and cultural awareness. Language learning can give you the confidence to work and travel internationally, expand your options for studying abroad, and get a competitive edge when you're looking for a job. There are a number of ways to do it, so look online to discover the best option for you.
www.essex.ac.uk/study/why/languages

Talent Development Centre

Unleash your potential and visit our Talent Development Centre. Providing support on academic literacy, numeracy, English language, employability and IT to help you be the best you can be.www.essex.ac.uk/students/study-resources/tdc/

Career Hub

Browse hundreds of top jobs and graduate vacancies, sign up to exclusive careers events, book CV reviews and one-to-one careers advice, and connect with employers on CareerHub, our online jobs portal.

www.essex.ac.uk/welcome/careerhub

Frontrunners

Frontrunners is our unique placement scheme for students. We'll give you challenging employment opportunities on campus and help you develop the skills you need to compete for the best jobs. We'll even give you on-the-job training and pay you, too.
www.essex.ac.uk/welcome/frontrunners

Student Ambassadors

Student Ambassadors are current students who help to promote the University and higher education. As a Student Ambassador you can get involved in a whole range of opportunities, in particular helping our

Student Recruitment and Outreach teams. Student Ambassadors are normally recruited at the start of the Autumn Term.

www.essex.ac.uk/careers/job_hunting/on_campus

Volunteering

There are plenty of opportunities to **volunteer** during your time at Essex. The Students' Union runs the vTeam, which is a fantastic opportunity to meet new people, make friends, give something to the local community, and gain valuable skills.

www.essex.su/vteam

Big Essex Award

This is the University's **employability award** and will help you stand out from the crowd and get University recognition for all your extra-curricular experience.

www.essex.ac.uk/careers/bige

Essex Interns

Essex interns create paid internships exclusively for you as an Essex student. They're flexible too; part time during term time or full time in vacations. You can even take part up to three years after you graduate, as part of our Essex graduates support package.

www.essex.ac.uk/careers/internships/

You Matter: Health, Welfare, Support and Safety

Student Services Hub

If you need practical advice, a confidential conversation, or general information and guidance on University life, no matter what the issue is, the Student Services Hub is the place to go. Want to know how and when to apply for accommodation? Having problems with your funding? Struggling with exam stress? Your questions matter and you'll get answers from our team of experts.

Colchester email: askthehub@essex.ac.uk

www.essex.ac.uk/students/health-and-wellbeing

If you get into financial difficulty get help and talk to someone as soon as possible. The sooner your problem is identified, the sooner it can be solved. Advisers in our Student Services Hub and our independent SU Advice Centre can listen and talk you through the issues.

http://www.essex.ac.uk/fees-and-funding/money/ http://www.essexstudent.com/advice/money/

Harassment advisory network, dignity and respect
We are Essex. We encourage a culture of dignity and respect. We're committed to upholding an environment

that's free from any form of harassment or bullying. Though rare, these incidents can occur and if they do our network of trained harassment advisors are on hand to help.

www.essex.ac.uk/equality

www.essex.ac.uk/equality/harassment

www.essex.ac.uk/students/new

Faith groups

We're proud of our vibrant and diverse multicultural community and we recognise and support the many different religions and beliefs on campus. The calm, friendly and supportive atmosphere in our Multi-Faith Chaplaincy is a welcoming place for staff, students and the wider community to meet, interact and engage with each other.

www.essex.ac.uk/students/experience/mfc/default.aspx

Nightline

Established at Essex in 1970, Nightline is a friendly help and support service run by students, for students. We work under strict confidentiality ensuring complete anonymity, and we're always willing to listen. From tea and toast to campbeds, whether you're waiting for a taxi, need a revision break, or just want to chat, pop in or call us.

www.essex.ac.uk/students/health-and-wellbeing/nightline.aspx

Health and safety on campus

Our campuses are generally very safe environments. We want to ensure that things stay this way. In order to achieve this we work closely with local agencies including the police and borough councils. Take a look at our website for general advice and information.

www.essex.ac.uk/students/experience/safety

Please read the emergency evacuation notice in your accommodation, work or study location for fire safety procedures. If you have a permanent or temporary disabilities that may mean you have difficulty in evacuating one or more areas, you can arrange for a Personal Emergency Evacuation Plan (PEEP).
www.essex.ac.uk/students/experience/safety
www.essexstudent.com/services/safety_bus -
www.essex.ac.uk/students/campus/emergency
www.essex.ac.uk/ohsas/fireSafety/peep.htm

Residence Life

Our Residence Life team is here to help you settle in and support you during your time living on campus. Each residents' assistant (RA) is assigned an area and will aim to get to know you and organise a range of social activities. Plus they can help if you've got any concerns or complaints. Residence Life operates outside of office hours when other University support services are closed.

www.essex.ac.uk/accommodation/support/reslife

University of Essex

Health Centre

If you're studying on a course for more than six months, you're required to register with a local doctor. Our Colchester Campus has its own health centre or you can use the NHS Choices postcode finder to find your nearest doctor.
www.rowhedgesurgery.co.uk
www.nhs.uk

Students' Union Advice Centre

Our SU advice centre offers free, confidential, independent and impartial advice on any issue that might be affecting you. Our friendly, trained staff are on hand to support you throughout your time at Essex.

www.essex.su/advice

suadvice@essex.ac.uk

01206 874034

University Privacy Statement

Under the Data Protection Act 1998, any individuals about whom the University may be holding personal data have the right to access the data that is being held about them. Full details about how this works, and how to request such information are available on the Records Management web pages, see: 'How to access your personal data'.
www.essex.ac.uk/site/privacy_policy.aspx

www.essex.ac.uk/records_management/request

The Essex Experience

The Essex Student Charter

Our **Student Charter** is developed by the University of Essex and our Students' Union as a part of our ongoing commitment to create an outstanding environment that offers the highest standards of teaching, research and support in an international and multi-cultural community.
www.essex.ac.uk/students/experience/charter

Freedom of speech policy and the Code of Conduct

For regulations relating to the **Code of Student Conduct**; procedures for investigating breaches; appeals process please refer to the Terms and Conditions apply booklet all new students receive with welcome information, previously known as the Code of Student Conduct and The Rulebook. This information is on the University's website and is updated annually.
www.essex.ac.uk/students/study-resources/handbooks
www.essex.ac.uk/about/governance/regulations/code-conduct.aspx

Essex Spirit, social media and What's on?

Keep up-to-date with important news, events and offers from across the University with our Essex Spirit blog. Go to our email lists to subscribe to the fortnightly e-bulletin.

blogs.essex.ac.uk/essexspirit/

www.essex.ac.uk/students/new

We have more than 60 Facebook pages, including one for each department. We're also on Twitter.

www.facebook.com/uniofessex/

twitter.com/Uni_of_Essex

Our 'What's on?' calendar brings together all the events happening across our three campuses, so you can make the most of your time at Essex.

www.essex.ac.uk/events

Students' Union

We're famous for our **Students' Union** at Essex, and for good reason. Here you're not just a member of a normal Students' Union, you're part of a family. We're here to cheer you on as you walk into exams and to help you absolutely destroy the competition in interviews and land your dream job. We've given students the tools to set up over 100 societies for anything they want. And if you're into sport – we run more than 40 sports teams and unlike other Universities ours are free to join. You choose what drinks we serve in our bar

and what products we stock in our shops, just write it on the wall and we'll do our absolute best to get it in stock for you ASAP.

Say hello at essex.su

Alumni

Your time will fly by. But Essex is forever, not just for a few years, and you'll be part of this place for life. When you graduate, you'll get an alumni card, which gets you access to all alumni events, like our popular Sports Weekend, and allows you to keep using the gym and the library, so stay in touch.

alumni.essex.ac.uk/home

What comes next?

Choosing to be a **postgraduate student** at Essex is one of the few decisions in life that's black and white. Our research degrees include PhD, MPhil, MSc, MA and MD, and our culture of world-class research provides an outstanding and supportive environment in which to undertake your research study. If you decide to stay on for further study with us, you'll have a great opportunity to study a challenging course within a research-intensive and supportive environment. You'll develop knowledge in your chosen area and learn from some of the top academics in the field, while becoming a valued member of our postgraduate community. Explore our courses on our coursefinder, and find out more about the value of being a postgrad.
www.essex.ac.uk/study/pg
www.essex.ac.uk/coursefinder

The Department of Mathematical Sciences has an international reputation in many areas such as semi-group theory, optimisation, probability, applied statistics, bioinformatics and mathematical biology. Our staff are strongly committed to research and to the promotion of graduate activities.

Taught courses

We offer a variety of taught Masters courses which provide you with up-to-date training in your area of study. We have strong links with Essex Business School, the Department of Economics, and the Schools of Computer Science and Electronic Engineering and Biological Sciences. This enables us to offer some unique courses.

Research study

We offer a lively and stimulating environment in which to carry out your postgraduate research. Our academic staff are working on projects at the cutting edge of their fields.

HEAR

When you study at Essex, you get far more than just a degree. Along with showcasing your academic achievements, the Higher Education Achievement Report (HEAR) records any activities you've undertaken and logged through the Big Essex Award, and any awards and prizes you receive.

When you graduate, you'll have full electronic access to your HEAR for free, for life. You'll be able to share this with employers and other universities, providing them with a University-certified record of your achievements.

To start making the most of your HEAR; visit our website to activate your account.

www.essex.ac.uk/see/hear/