THE UNIVERSITY of EDINBURGH
informatics

Frequently Asked Questions (by students on visit days)
2018 entry undergraduates

Contents

What is Informatics?

Informatics is the study of the structure, the behaviour, and the interactions of natural and engineered computational systems. At its simplest, Informatics is Computer Science, but it is also a much wider discipline covering:

- Artificial Intelligence
- Computer Science
- Software Engineering
- Cognitive Science

By studying Informatics, you will look at how information is exchanged in its widest sense, both artificially; in computers, but also in nature through the human mind.

What is the difference between Cognitive Science BSc and a MA?

The Cognitive Science Programme is jointly organised by the School of Philosophy, Psychology and Language Sciences (PPLS) and the School of Informatics. It is an interdisciplinary degree which attempts to understand the human mind. It focuses on abilities such as reasoning, perception, memory, awareness, emotion, attention, judgment, motor control and language use. There are two degrees:

1. BSc Cognitive Science - School of Informatics. Emphasising mathematical and computational approaches to the study of the human mind.
2. MA Cognitive Science (Humanities) - School of PPLS. Emphasising theoretical and experimental approaches to the philosophical, linguistical and psychological nature of language and the mind.

Cognitive Science students may apply for the degree in either School and choose courses from both allowing them to combine the study of core computing and human science subjects of their choice of specialisation.

What is the difference between a BEng and a BSc?

There is no difference in content between a BSc and a BEng and the British Computer Society accredits them both. Employers treat both degrees the same and a BSc or a BEng in Computer Science from University of Edinburgh should carry weight anywhere in the world. The choice of BEng is designed for students who come from countries where computer science is regarded as an engineering discipline rather than a science.

Why is the Informatics (MInf) degree five years?

We offer a unique five-year Master of Informatics (MInf) course that covers diverse topics such as computer science, artificial intelligence, linguistics, cognitive science, neuroscience, psychology and biology. The course offers students the chance to study these subjects at more depth than a BSc or BEng and allows students to enter into a PhD upon completion.

Why are programmes longer in Scotland, compared to the rest of the UK?

Scottish degree programmes are designed to include four years of study to give you a broader and more flexible education. They allow you to try a range of subjects before specialising. Even if you know exactly what you want to do, you can study additional subjects and add depth to your education. By the time you graduate your breadth of knowledge will be highly prized by employers, giving you the best chance of success in your chosen field. For more information about the 4 year degree structure: http://www.ed.ac.uk/studying/undergraduate/student-life/academic/degree-structure/degree-structure

Which languages do you teach?

In your first 2 years you will be taught two very different programming languages, Java and Haskell, from complete beginner level. In subsequent years various courses may introduce new languages/libraries/frameworks, but typically these will only be sketched and you will be expected to do further reading and pick up the details yourself.

How much Maths is there? Why?

There is a fair bit of Maths, both explicitly (in years 1 and 2) and implicitly. Informatics uses more "discrete" maths (e.g. logic, sets, graphs, algebra probability etc.) than many other disciplines. Continuous maths (analysis, calculus) has important applications too.

Discrete maths is important both because its specific content is sometimes needed in CS topics (e.g. analysing algorithms, proving things about programs, modelling real problems e.g. with graphs) *and* because good ability in and familiarity with careful manipulation of symbolic information is crucial.

Do you assume I have done some computing before?

No, we start from scratch, but we move at a fair pace, assuming that you are both intelligent and up for it.

Should I buy/bring my own computer? Which?

We provide computer laboratories where you can do all coursework, so there is no need to bring a computer with you but many students do, so they can work in other places too. If you are considering buying a computer, your first decision is whether to buy a desktop,

laptop or a tablet. A tablet is the most limited; you won't be able to do much coursework on one. Most students find laptops the most versatile, but the decision is personal. You will type quite a lot and should choose a set-up that lets you do so comfortably. In laptops the trade-off between a large screen and the weight of a machine you will carry around needs careful consideration. For most purposes, any modern processor will be fine; amount of RAM tends to be more important and if you're going to upgrade anything you might consider this first. Coursework is unlikely to require you to have more disk space than now comes as standard.

Informatics' standard operating system is Linux (currently based on Scientific Linux 6). Most of the software used for courses is open source and cross platform, but you might find running Linux sometimes makes it easier for you to run the same version of the same software that is used in the labs. Note that computing staff don't offer support for students' machines, and problems with your own computer would never excuse losing work or missing a deadline; you need to be prepared to administer, secure and backup your own computer (good skills to acquire anyway).

What are the entry requirements?

The typical offer for 2018 entry is likely to be:

- SQA Highers: AAAA in one sitting.
- A Levels: AAA in one sitting.
- IB: 37 points with 655 at HL.

Minimum entry requirements

- SQA Highers: AABB by end of S5 or AABBB/AAAB from S4-S6, to include Mathematics at Grade We strongly recommend that you study Advanced Higher Mathematics.
- A Levels: ABB in one sitting, to include Mathematics at Grade
- IB: 32 points overall and award of IB Diploma with 655 to include Mathematics HL at Grade 6 plus two further HL subjects at Grade 5.

A pass is required in English, at least SQA Standard Grade 3, GCSE Grade C or equivalent.

What happens if I don't achieve the grades I was hoping for?

Each case is dealt with on an individual basis, you should speak directly to the Undergraduate Admissions and Recruitment Team, College of Science and Engineering.

https://www.ed.ac.uk/science-engineering/contact

Why are your entry requirements more if taken over two years?

The reason is that students have to show that they can cope with a workload typical of a university year. At present students need to pass at each year before progressing to the next and cannot accumulate passes. In asking applicants to demonstrate this then it inevitably means asking for more over two years.

What are the advantages and disadvantages of direct second year entry?

The main advantage is that your course will be one year shorter, hence lower costs and a faster entry into the workplace. The main disadvantage is a reduction in the flexibility of course options, and of course having to catch up on a limited amount of material that was taught in the previous year. However, if you are sure of your chosen career, and have the grades for second year entry, then the fast track route is for you. For direct entry to second year the minimum requirements must be exceeded, including the following:

For direct entry to second year the minimum requirements must be exceeded, including the following:

- SQA Advanced Highers: AAA to include Mathematics and Further Mathematics. Appropriate relevant computing qualifications or experience is required.
- A Levels: A*AA in one sitting, to include Mathematics and Further Mathematics. Appropriate relevant computing qualifications or experience is required.
- IB: 38 points overall and award of IB Diploma to include Mathematics HL at Grade 6 plus two further HL subjects at Grade 6. The Diploma must include Computer Science.

Which other courses can I take?

First year = 120 credits, 80 credits made up of Informatics and Maths courses plus another 40 credits to be used in other subject/subjects.

Second year = 120 credits, 100 credits made up of Informatics and Maths courses plus another 20 credits to be used in other subject/subjects.

Honours = lots of courses/projects. Half and half for combined degrees.

In the first two years the other course can be virtually any subject anywhere within the University provided it fits your timetable, you have the required prerequisites and the class isn't full. You will have a Personal Tutor to advise and assist you. In the two Honours years there are a large number of courses to choose from covering a range through philosophy, psychology, linguistics, artificial intelligence, cognitive science and computer science.

What kind of final year projects do people do?

All kinds, *including self-proposed*. Here is a random selection of recent projects:

- Beautiful Timetables from Beautiful Soup
- The Importance of Being Android
- Developing Educational Games for Teaching Children with Autism
- A Tamagotchi to promote Energy Efficiency
- Tracking and annotating a chess game
- Dynamic Route Planning for Rural TaxiBus Services
- Sentiment for Twitter
- Butterfly identification phone app
- Guided self-organisation of behaviour in autonomous robots
- An app for the game of sprouts

- Octopus Arm
- Toolbox for spike distances
- Detecting Errors in Human Translations

You can find examples of outstanding project submissions on our website; http://project-archive.inf.ed.ac.uk/ug4/2017-outstanding.html

What do you think of taking a year out before University?

This is a very personal decision and you can benefit in many ways. You need to bear in mind that you will be away from studying for a year, and have to be ready to start studying properly when you begin University.

Will I find it easy to get a job at the end of the course?

Graduates in IT/Computing have a wide variety of career options to them, recent graduates have gone on to work as:

- Database Administrator
- IT Technical Support Officer
- IT Consultant
- Web Developer
- Software Engineer

However, there are also countless jobs where knowledge of IT can provide a benefit- teaching, research, technical author, entrepreneur etc.

http://www.ed.ac.uk/informatics/undergraduate/why-study-here/your-future

Will I have to get a job to survive at university?

Many students undertake part-time work at some point during their University career. The University provides a job seeking service that is open to all students and makes sure that your rights are looked after. For more information please visit the Careers Service website; http://www.ed.ac.uk/careers

Where will I live?

There is a variety of types of accommodation to choose from when studying at the University of Edinburgh. You can stay in the university's main halls of residence, Pollock Halls, where about 1,900 students live in single study bedrooms on a full board basis. Many of these rooms have their own bathrooms. Or you could live in a university self-catering flat which normally accommodates between 4 and 6 people. A third option is to stay in a student house. For the rest of your time at the university most students like to find a flat or a house to rent with their friends. The accommodation services will help here too.

http://www.accom.ed.ac.uk/for-students/undergraduates/

http://www.eused.ac.uk/support_and_advice/the_advice_place/accommodation/

Am I guaranteed accommodation when I come to study at Edinburgh?

You are guaranteed an offer of University accommodation if:

- you are a new, single student at the University of Edinburgh; and
- your online accommodation application is received by 16 August in the year of entry to the University; an
- you are UF (Unconditional Firm) on UCAS by 30 August in the year of entry to the University; and
- you reside outside the City of Edinburgh; and
- you are studying at the University of Edinburgh for the whole academic year, starting in September

More information can be found on our website: http://www.accom.ed.ac.uk/for-students/undergraduates/undergraduate-accommodation-guarantee/

What is it like to live in Edinburgh?

Edinburgh is one of the best cities in which to live - particularly for students. It is small enough for you to walk to most places you might want to visit and the public transport is frequent and fairly cheap. Edinburgh is a safe place to cycle with its cycle ways in the centre of town. There is something for everyone in Edinburgh, from cheap to expensive, cultural to sporty. There are plenty of restaurants and pubs, theatres, cinemas and art galleries, museums and parks, shops and sports facilities (e.g., golf courses, Olympic sized swimming pool, athletic track, football and rugby pitches, artificial ski slope, tennis and squash courts, gyms) plus all the clubs and societies you can join as an Edinburgh University student.

http://www.ed.ac.uk/informatics/undergraduate/why-study-here/living-in-edinburgh

What is like to living in University of Edinburgh accommodation?

You can visit our website to find lots of helpful information about what type accommodation is available, and what options are open to you.

http://www.accom.ed.ac.uk/for-students/undergraduates/

http://www.accom.ed.ac.uk/video-living-with-us/

http://www.accom.ed.ac.uk/video-eating-on-campus/

Are there opportunities for studying abroad during my course?

Students can participate in schemes such as the ERASMUS programme, which allows students to study part of their degree in a different member state of the European Community. For students who wish to study further afield there are opportunities to study at a variety of prestigious universities in the USA through the North American exchange programme, Australia, New Zealand, and elsewhere. Selection is often based upon academic merit and ambassadorial qualities. The University prospectus has more details about many of these schemes.

For more information visit:

http://www.ed.ac.uk/global/study-abroad/study-options/study-abroad-overview

How many lectures do I have to attend in a week?

This really depends upon the year that you are in, and the exact options that you take. During one week of a typical first or second year you might attend 10-11 lectures, 3 tutorials, and a 1 or 3 hour laboratory session. You are also expected to work on lecture material and tutorials outside of these hours, plus any assignments that are set for the courses that you attend.

Can I switch from a single honours programme to joint honours, or vice versa, once I have started?

In both cases, a qualified yes. There are various points in the programme at which you can change your direction. The decision to opt out of, or into, other combined or single honours courses must take place by the start of the third year.

It is good practice to discuss with your Personal Tutor, what your interests are when you meet, so that they can keep your options open.

How many of female students are currently in the School?

Based on the numbers of current students in 2017/18 session, the percentages are

- Female Undergraduate Students- 28%
- Female Postgraduate Taught Students - 31%
- Female – all Taught Students - 29%

What is a personal tutor?

A Personal Tutor is an academic staff member, who will support you throughout your time at the University, giving you academic support and a route to pastoral support. You, as a Tutee, will work with your Personal Tutor to reflect on your academic performance and on how this contributes to your aspirations and helps you to engage as a member of a community of learners.

Your Personal Tutor will:

- help you to review your academic progress and performance regularly;
- help you to think about your learning, how it contributes to your future development, prepares you for your time at university and your career;
- help you to become a confident, active member of a community of learners;
- help you to deal with any concerns or problems that might affect your studies and refer you to other staff in the School and support services as appropriate.

http://web.inf.ed.ac.uk/infweb/student-services/ito/admin/pt-statement-supplement

What Peer Support, activities and/or resources are available?

Below is a sample of some of the societies our students are members of, however there are many more; https://www.eused.ac.uk/activities/societies/findasociety/

InfBase

InfBase is a student helpdesk where year-1 and year-2 students can drop in to get additional tutoring and support with their courses. InfBase tutors are selected on the basis of expertise and coverage, offering support and advice on core pre-honours courses in Informatics. In addition to supporting drop-in assistance, InfBase can be used as a place to work together with other students, with support from an InfBase staff member.

http://web.inf.ed.ac.uk/infweb/student-services/ito/students/year1/student-support/infbase

InfPALS (Year 1 Students)

PALS stands for Peer Assisted Learning Scheme. PALS is a system of student-to-student support where new university students are supported in their studies by later-year students (PALS leaders/facilitators). The student-led PALS session is where peer-assisted learning 'happens'. Students set the agenda for the session, and work together to get the most out of the experience. Guided and supported by the PALS leaders, each session is a chance for students to share any questions, problems or worries - academic or otherwise - within an informal, friendly and supportive environment.

CompSoc (the University of Edinburgh Computing and Artificial Intelligence Society)

https://comp-soc.com/

Is a student-run organisation with strong ties to the School of Informatics. CompSoc aims to provide a social network for students with an interest in computers, encourage both novice and advanced computer users to further educate themselves and others and build relationships between students and professionals in the IT industry.

Edinburgh University Hoppers, Women in Informatics

http://hoppers.inf.ed.ac.uk/index.html

Support women in technology by organising events that concentrate on gathering women interested in technology, as well as providing the opportunity for them to develop their skills in this field.

Programming Club

http://progclub.inf.ed.ac.uk/

It is a voluntary, no credits club for undergraduate students to get more practical programming experience. It is held once a week during term time. For a couple of hours in a relaxed lab students have the chance to work on different challenges and fun programming projects.

GameDevSoc

http://gamedevsoc.com/

A society for game developers, newbies and seasoned game devs welcome!

EaRS (Embedded and Robotics Society)

http://ears-edi.com/

EdIntelligence (Machine Learning Society)

http://edintelligence.github.io/

Provides events, workshops and tech talks to students interested in Machine Learning.

SIGNIT

https://sigint.mx/A group for students interested in Cyber Security.

GameSoc

https://www.eused.ac.uk/societies/society/GameSoc/

A society dedicated to video gaming.

Cognitive Science Society

https://cogscisoc.weebly.com/

Provides a community for students in Cognitive Science, and anyone else interested.