Frequently Asked Questions (by students on visit days)

General questions about the School of Informatics

Q. What is Informatics?

A. 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.

Q. Why is the Informatics 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.

Q. Which languages do you teach?

A. In your first 2 years of study 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 in support of their material, but typically these will only be sketched and you will be expected to do further reading and pick up the details yourself.

Q. How much Maths is there? Why?

A. There is a fair bit of Maths, both explicitly (in years 1 and 2) and implicitly. Informatics uses more "discrete" maths (eg 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 (eg analysing algorithms, proving things about programs, modelling real problems (eg with graphs)) ***and*** because good ability in and familiarity with careful manipulation of symbolic information is crucial.

Q. Do you assume I have done some computing before?

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

Q. Should I buy/bring my own computer? Which?

A. The School of Informatics, and the University in general, provides computer laboratories where you can do all coursework, so there is no need to bring a computer with you. Many

students, however, like to be able to work in places other than the labs and do bring computers of various sorts. If you are considering buying a computer to bring to university, you might like to bear these things in mind. Your first decision is whether to buy a desktop, a laptop or a tablet computer. A tablet is of course the most limited; you won't be able to do much coursework on one. Most students find laptops the most versatile, but like many aspects of this decision this is very personal. Ergonomics is important: you will type quite a lot and should choose a set-up that lets you do so comfortably. In laptops the trade-off between the convenience of 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 comes as standard on any machine you buy now.

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, though, that the 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).

Q. Which other courses can I take?

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

Second year = 120 credits, 100 credits made up of Inf 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.

Q.What are the entry requirements?

The typical offer for 2015 entry is likely to be:

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

Minimum entry requirements

- SQA Highers: ABBB by end of S5 or ABBBB/AABB from S4-S6, to include Mathematics at Grade A. We strongly recommend that you study Advanced Higher Mathematics.
- A Levels: ABB in one sitting, to include Mathematics at Grade A.

- IB: 32 points overall and award of IB Diploma to include Mathematics HL at Grade 6 plus two further HL subjects at Grade 5.

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

A. 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.

Q. What is the difference between a BEng and an Bsc ?

A. There is no difference in content between a BSc and a BEng degree and both are accredited by the British Computer Society. Employers also treat both degrees the same, and either a BSc or a BEng in Computer Science from Edinburgh will carry weight anywhere in the world. The choice of BEng is designed to work for those students who come from countries where computer science is seen as an engineering discipline rather than a science.

Q. What kind of final year projects do people do?

A. 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

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

A. 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.

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

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

Q. What is Cognitive Science?

A. 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.

The Cognitive Science Programme consists of 2 degrees:

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

General questions before starting university

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

A. 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.

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

A. As 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.

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

A. 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.

Q. Where will I live?

A. You have a choice of accommodation type when you come to 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. The accommodation services at the University of Edinburgh guarantee all students in their first year at the university from outside the Edinburgh area a place in University accommodation. 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.

Q. What is it like to live in Edinburgh?

A. 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.

General questions about courses at the University of Edinburgh

Q. Are there opportunities for studying abroad during my course?

A. 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.

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

A. 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.

Q. If I sign up for a combined degree course can I change later on if I don't enjoy it?

Q. If I sign up for a single honours course, can I change later to a combined degree?

A. In both cases, a qualified yes. There are various points in the course 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. The decision to opt INTO a combined honours course requires that you have studied the same subjects as those that have been registered on that course from entry. The moral is that you should tell your Personal Tutor the options that you may be interested in when you arrive at University so that they can keep as many options open to you as possible.

Q. Why do courses take a year longer in Scotland, compared to the rest of the UK?

A. The reasons for this difference are largely historical and are to do with the different school systems in Scotland and the rest of the UK. However there are many benefits. For example, the Scottish degrees are typically more flexible than equivalent 3 year degrees in England and Wales. This is because you can take one or more outside subjects in your first and second year and so you can gain useful experience and leave yourself with alternative degree paths should you wish to keep your options open. Another benefit is that you will be able to go deeper into the main subject(s) that you are studying. This is especially true of Informatics subjects, where there are a very wide range of courses offered.

If students still have a query which you cannot answer please direct them to the ITO.