

# The Subject Matters

## Post-16 Subject Choices

### Introduction

The AS and A Level subject choices you make when in Year 11 (or equivalent) can have a significant impact on the course options available to you at university.

When assessing applicants at the University of Cambridge, we consider not only the individual A Level (or equivalent) subjects taken but also the combination of these. We generally prefer applicants to have taken certain subjects, or combinations of subjects, because we believe that they are more likely to provide an effective preparation for study at the University.

If you are in Year 11 (or equivalent) and are having to choose your AS/A Level options, this leaflet provides useful advice to ensure that the decisions you make will not unduly limit the opportunities available to you should you decide to apply to Cambridge in the future.

If you are studying qualifications other than A Levels the advice about subject combinations that follows is essentially still true.

### Do you know the course you want to study?

Many Cambridge courses require prior knowledge of certain subjects and Colleges will expect such subjects to be passed, normally with at least an A grade at A Level or equivalent.

If you have already decided on a course that you would like to study at university, we recommend that you take a look at the information on *Course Requirements* given on our website ([www.cam.ac.uk/admissions/undergraduate/requirements/](http://www.cam.ac.uk/admissions/undergraduate/requirements/)) before you finalise your A Level subject choices to check that they will be appropriate for a Cambridge application. You might also wish to do this for the same course – or similar courses – at other universities.

### Do you want to keep your options open?

Choosing subject combinations that genuinely keep your options open is trickier than you might think. We often encounter students who have chosen to take two arts and two science subjects at AS Level because they believe it will keep their options open. While such a subject combination does provide a suitable preparation for many arts and social science courses at the University it can make you a less competitive applicant for Cambridge's broad-based science courses.

There are certain A Level subjects that are considered either essential or useful for a number of courses at Cambridge, therefore choosing one or more of these will help keep your higher education options open.

These subjects include: **Chemistry**, **English Literature**<sup>†</sup>, **History**, **languages**, **Mathematics**<sup>‡</sup> and **Physics**. Other subjects that also facilitate course choice at Cambridge include **Further Mathematics**<sup>‡</sup> and **Biology**.

If you want to keep your options open but you think you are likely to want to study an arts/social science or science-based course at university please read our further advice overleaf.

### ***Are you inclined towards the arts or social sciences?***

If you think you would like to study an arts or social sciences course at university but you are not sure which one, then **English Literature**<sup>†</sup>, **History**, **languages** and **Mathematics** are good 'keystone' subjects: choosing one or more of these will provide a good foundation for your subject combination. Other good choices to combine these subjects with include: an additional **language**, **Ancient History**, **Classical Civilisation**, **Economics**, **Further Mathematics**<sup>‡</sup>, **Geography**, **Philosophy**, **Religious Studies** and **sciences (Biology, Chemistry or Physics)**.

Other possible subject choices, for instance **Archaeology**, **Citizenship**, **English Language**, **Environmental Science**, **Government and Politics**, **History of Art**, **Law**, **Music**, **Psychology** or **Sociology**, are useful preparation for some of our arts and social sciences courses.

The arts and social sciences courses currently offered at the University of Cambridge are: *Anglo-Saxon, Norse, and Celtic*; *Archaeology and Anthropology*; *Asian and Middle Eastern Studies*; *Classics*; *Economics*; *Education*; *English*; *History*; *History of Art*; *Land Economy*; *Law*; *Linguistics*; *Modern and Medieval Languages*; *Music*; *Philosophy*; *Politics, Psychology & Sociology*; *Theology and Religious Studies*.

### ***Are you inclined towards the sciences?***

If you think you would like to study a science course at university but you are not sure which one, then you are advised to take at least two, and ideally three, of **Biology**, **Chemistry**, **Mathematics** and **Physics**. Some pairings of these subjects are more natural than others. The most natural pairs are Biology and Chemistry, Chemistry and Physics, and Mathematics and Physics.

In practice the vast majority of applicants for science courses at Cambridge take at least three of these subjects. Another useful combination is Mathematics, **Further Mathematics**<sup>‡</sup> and Physics. Many students take four of Biology, Chemistry, Mathematics, Further Mathematics and Physics.

If you are planning to study biological or medical sciences you should take Chemistry; for physical sciences or engineering you should take Mathematics and Physics and ideally Further Mathematics.

Other possible subject choices, for instance **Computing**, **Design and Technology**, **Electronics** or **Psychology**, may be useful preparation for some of our science courses.

The science courses offered at the University of Cambridge are: *Computer Science*; *Engineering*; *Mathematics*; *Medicine*; *Natural Sciences*; *Veterinary Medicine*.

### ***Other Cambridge courses***

We also offer courses in *Architecture* and *Geography*. These have not been listed in the sections above because they are difficult to allocate to one of the two groups. Advice about suitable subject combinations for these courses can be found on our website ([www.cam.ac.uk/admissions/undergraduate/requirements/](http://www.cam.ac.uk/admissions/undergraduate/requirements/)).

### ***Other A Level subjects***

There are, of course, many other A Level subjects we have not mentioned at all in this leaflet. The fact that we have not mentioned them does not mean that we think they are not individually worth taking. They are, however, either rather specialised in focus and therefore not a good choice if you are looking to keep your options open, or the way in which they are taught and assessed means that they do not provide a good preparation for the courses that the University of Cambridge offers. If you are thinking of applying to Cambridge our advice is therefore to ensure that among your three or four A Levels you are doing no more than one of these other subjects.

Please note that A Level General Studies and Critical Thinking will be only considered as fourth A Level subjects, although Critical Thinking may occasionally form part of a conditional offer.

# Why university?

## What is higher education?

Higher education is the term used to describe courses of study in universities and colleges that are at a higher level than at school. These courses lead to qualifications called degrees or diplomas.

Most people start higher education courses at age 17 or 18, after studying in Years 12 and 13. Some students may decide to take a year out first or may even come back to studying later in life as a mature student.

Higher education courses are available at a wide range of universities and colleges all over the UK, and there are currently more than 50,000 courses and 300 different places to study.

## Why go to university?

There are several reasons to go to university, including:

- 1) To study a particular subject in more depth** – You may already enjoy a particular subject at school or you may want to branch out into a new area, eg to study surveying because you like geography, or zoology because you enjoy biology.
- 2) The career you are interested in may require a degree level qualification** – To become a doctor, dentist, architect, town planner, teacher, lawyer or chartered engineer, for example, you are required to have a degree. You may be interested in one of the many high-level (and more highly paid!) jobs that are open to people with degrees or diplomas.
- 3) For the 'university experience'** – Being a student at university widens your experience of the world. You meet new people from all over the UK and overseas, from a wide variety of backgrounds and cultures. You are also offered a range of exciting opportunities for your social life as well as your studies and many students take this as an opportunity to leave home. All these things make your time at university an all-round experience as well as a chance to develop a range of skills which are highly valued by employers.

## What is life like as a student?

### 1) Studying

For a start you'll have chosen the subject(s) that you really enjoy which makes a big difference from school. It's a much more grown up experience! You'll have a weekly timetable with a number of lectures where large numbers of students listen to the information given by the lecturer and make notes; and tutorials/seminars, which are in smaller groups. For some subjects there will also be more practical sessions, eg in laboratories or design studies. However, a lot of the week is likely to be private study time where you are expected to work on your own, prepare for a group discussion, read for an essay, or work through problems.

### 2) Accommodation

Many students, even if they go to a local university or college choose not to live at home in order to be more independent. Most universities make this easier by providing accommodation for many of their students, particularly in their first year. Accommodation could be in a hall of residence for large numbers of students, or in a share house or flat, normally with a small group of other students. You usually get your own study-bedroom and pay rent to the university.

### **3) Social activities**

Universities have lots of social activities. Every university has a Student's Union which provides places to meet, eat and drink, as well as organising regular entertainment such as club nights and live music. They also run a huge variety of clubs and societies which range from sports clubs, community action groups, student newspapers, and radio stations, to societies and music groups of all kinds. Anyone with interest and enthusiasm can join any group!

### **4) Support**

Being independent, possibly for the first time in your life, doesn't mean that there is no-one to turn to for help. If you do find it difficult to get used to your new life and routine, you can get advice from people like your personal tutor in your department, the warden in your hall of residence, or a welfare officer.

## **How is Cambridge different?**

Cambridge is one of the best universities in the world but what sets it apart?

### **1) Teaching**

Our teaching staff includes many national and world subject leaders, including some Nobel Prize winners. At Cambridge you are trusted with responsibility for your own learning, and learning how to learn is an important part of succeeding here. In addition to lectures and seminars, at Cambridge you will have supervisions which are very small teaching groups and a great way of making sure that you've digested and understood what you are studying.

### **2) Departments and Colleges**

Cambridge is structured a little bit differently from other universities in that it is a 'collegiate' university. This means that it is comprised of faculties and departments for each subject *and* a number of Colleges.

Teaching at Cambridge is organised into a number of faculties. Each faculty is responsible for a broad subject area, and some of the larger faculties are divided into smaller departments.

If you apply to the University your application is considered by one of the Colleges. Your College is also the place where you live, eat, socialise, and receive your personal tuition (supervisions). Your College becomes your community, for all welfare and support.

### **3) What we are looking for**

Everyone who applies to Cambridge is treated and assessed individually. We look for different things in different people for different courses, however in general we are looking for:

- *Academic ability and potential*
- *Motivation and independent thought*
- *Passion for your course*

If you think you have what it takes, we would love you to apply. Have a look at our website for more information and opportunities to visit: [www.cam.ac.uk/admissions/undergraduate/](http://www.cam.ac.uk/admissions/undergraduate/).

## How will I choose?

Each university and college produces a prospectus which gives details of all its degree and diploma programmes, entrance requirements and other important information such as sports and social facilities and what the town/city is like. This information will also be available on the university website.

Reading the prospectuses/websites and visiting university and college open days will help you to work out what you would like to study and where. You will also be able to find out what grades you will need to get into the university of your choice. Your school or college, or the Government advice website ([www.direct.gov.uk](http://www.direct.gov.uk)) can also offer further help and guidance.

## When will I choose?

It's never too early to start thinking about higher education. You'll have the chance to speak to careers teachers and advisors in Years 10 or 11 to discuss what you may want to do when you leave school, including the option of going to university or college. You may find it helpful to look at a few prospectuses in Year 11, but bear in mind that courses and entry requirements do change from year to year, so if you look at a prospectus several years in advance, the details will almost certainly have changed by the time you actually apply.

It is important at this time to try out some of the things you are interested in. Talk to people who do the job you would like to do, or students who have studied the course which interests you. This will help you to decide if it is something you'll enjoy and are good at.

Once you are in Year 12 you will need to do research into courses and universities by consulting prospectuses, consulting higher education directories and guides, and by visiting university open days or careers fairs. Prospectuses are kept in most school careers libraries, but you can get your own copy by contacting any university or college, and most of the information you need can be found on the university or college website.

## When and how will I apply?

You will usually apply during the autumn of Year 13, the year before you want to start your course. There is only one application form and you can apply for up to five choices of course/institutions on the one form. Everyone applies through the Universities and Colleges Admissions Service (UCAS) and you will be given plenty of help and support from your school or college when you apply.

## What else do universities and colleges look for?

When you apply for a place at a university or college, admissions staff will also look at what you have done outside your school studies, for example, your hobbies and interests. They will be interested in any work experience, voluntary work and any positions of responsibility that you may have held either in school or elsewhere. This additional background information helps to build a more complete picture of you, and is taken into account when the decision is made on whether to offer you a place on your chosen course.

# Quick guide to student finance

Going to university is an investment in your future – research shows that graduates earn more and have more career choices than those who haven't gone to university.

If you are currently thinking of applying to Cambridge here is our quick guide to student finance for UK/EU students in 2012.

## Low living costs

Living costs at Cambridge are much lower than many imagine. For example, students are guaranteed College-owned accommodation for three years<sup>~</sup>. As most annual student accommodation contracts are only 24-30 weeks long this can result in a significant saving compared with other universities.

## Value for money

Cambridge is committed to providing you with a world-class education, and intends to charge UK/EU students tuition fees of £9,000 per year for all courses\*. To ensure that our students have access to the very best teachers, facilities, resources and support we actually invest on average almost twice this amount in each student every year.

## No upfront fees

No student will have to pay their tuition fees while they are studying<sup>#</sup>. Instead you can take out a government student loan for fees, and defer payment until you have graduated and are earning at least £21,000 per year (see <http://yourfuture.direct.gov.uk/>).

## Financial support

Alongside any government support, you may be eligible for a non-repayable Cambridge Bursary worth up to £3,500 per year. The Bursary can be used to help with your living costs or to reduce your tuition fees. There are also various College-level awards and grants available and some students will be eligible for an additional £6,000 fee waiver reducing their fees to £3,000 in their first year.

## Investing in your future

Cambridge students are highly employable and sought after. Last year, over 91 per cent of our graduates were employed or in further study six months after graduating, compared with the national average of 85 per cent.

## Find out more online

For more information about student finance arrangements for 2012 entry have a look at our website: [www.cam.ac.uk/admissions/undergraduate/finance/](http://www.cam.ac.uk/admissions/undergraduate/finance/)

# Finding out more

Your teachers and careers advisers will be able to give you lots of help and advice about applying to university or college. In addition all universities arrange activities and events to help school students find out more about higher education, such as masterclasses, campus tours, and summer schools.

When you are in Year 12 you will have the opportunity to attend a higher education convention in your region. Here you will be able to talk to representatives from a large number of universities and colleges as well as pick up copies of Undergraduate Prospectuses. Someone from a university may also visit your school to give a talk. And if you want to visit universities in person to find out more, you'll find that most universities and colleges organise open days to enable you to do just that.

If you want to find out more about higher education have a look at some of the useful websites listed below.

## Find out more about higher education and student support:

- [www.direct.gov.uk/en/EducationAndLearning/UniversityAndHigherEducation/index.htm](http://www.direct.gov.uk/en/EducationAndLearning/UniversityAndHigherEducation/index.htm) – The Government website for university and higher education advice
- <http://yourfuture.direct.gov.uk/> – Government guide to current student finance and funding
- [www.skill.org.uk](http://www.skill.org.uk) – A national charity which helps young people with any kind of impairment in post-16 education, training and employment

## Find out more about choosing a course and applying:

- [www.ucas.com](http://www.ucas.com) – The official site for the Universities and Colleges Admissions Service. Find out what courses are available, where they are and how to apply
- [www.whatuni.com](http://www.whatuni.com) – A wealth of up-to-the minute information on universities, courses, UCAS applications, open days etc. You can even create your own shortlist of universities
- [www.opendays.com](http://www.opendays.com) – This site lists open days for most UK higher education institutions
- <http://unistats.direct.gov.uk> – This site enables you to compare courses and institutions

## Find out more about student life:

- [www.nus.org.uk](http://www.nus.org.uk) – The website for the National Union of Students
- [www.yougo.co.uk](http://www.yougo.co.uk) – The UCAS student network. Top student tips to prepare you for higher education
- [www.realuni.com](http://www.realuni.com) – An alternative look at higher education, written by current students for prospective students

## Find out more about studying at Cambridge:

- [www.BeCambridge.com](http://www.BeCambridge.com) – An honest look at Cambridge. Shows what Cambridge is really like from a student perspective, with top tips on applying
- [www.cam.ac.uk](http://www.cam.ac.uk) – The official University of Cambridge website
- [www.cam.ac.uk/outreachevents/](http://www.cam.ac.uk/outreachevents/) – Look out for events and open days run by the University
- [www.cam.ac.uk/admissions/undergraduate/publications/](http://www.cam.ac.uk/admissions/undergraduate/publications/) - Download our publications