Courses

One of the most distinctive characteristics of our courses (also called Triposes at Cambridge) is that they cover the subject area very broadly in the initial years and then offer a wide range of options in which to specialise in later years.

Course requirements

Essential subject requirements are given in each course entry (p44-117) and are defined as follows:

- **all Colleges require** – subjects that are essential for all Colleges
- **some Colleges require** – subjects that are essential for some Colleges

If you know what you want to focus on you can start to specialise early on or, if you’re undecided, you can delay specialising until you’ve had the chance to fully explore the breadth of your subject and developed your interests. Either way, by graduation you’ll have the same depth of understanding of your interests. Either way, by graduation you’ll have the same depth of understanding and specialist knowledge as other graduates in the field.

Generally, the number of subject options to choose from increases each year. In addition, some papers (topics) are offered in numerous courses (see course outlines). For example, some Classics and language papers are available in the English course. Beyond any compulsory papers you can usually tailor your course to your own specifications.

If the subject you’re looking for doesn’t appear in any of our course titles check the Index (p160-2), where all of our subjects – and the course(s) they’re offered in – are listed.

Admission assessments

Most applicants are required to take a subject-specific written admission assessment.

- Pre-interview assessments will be taken in late October/early November at a centre local to you (usually your school/college) – you must be registered in advance for any pre-interview assessment.

At-interview assessments are taken when in Cambridge for interview, if interviewed.

Apart from assessments for Medicine (see p90) and Veterinary Medicine (see p113), applicants to mature Colleges aren’t required to take any pre-interview assessments. For courses with a pre-interview assessment, you take a written assessment at interview (if interviewed) instead.

In addition to any subject-specific pre- or at-interview written assessment, some Colleges require applicants for some courses to take an additional College-set assessment at interview, if interviewed. See individual College websites for details.

Further information

www.cam.ac.uk/assessment

Part-time and short courses

The University only offers full-time undergraduate degree courses. However, our Institute of Continuing Education (ICE) offers a wide range of part-time and short courses for academic progression, personal or career development. See the ICE website for details at www.ice.cam.ac.uk.

www.ice.cam.ac.uk/ugstatistics

How you’re assessed on our courses

At Cambridge, the main form of assessment is written examinations. Most students have exams at the end of each year and it’s not usually possible to resit any of these. Our assessment methods are explained in the information about our courses online (www.cam.ac.uk/courses) and in course outlines (p44-117).

Changing course

Most students stay on the same degree course but it may be possible to change (with agreement from your College). See the course entries on our Undergraduate Study website for more common changes (www.cam.ac.uk/courses) and contact a College for advice.

www.cam.ac.uk/assessment

Course statistics

Application and admission statistics for 2017 entry are noted in the course fact files (where available) and you can find further statistics on our website (www.cam.ac.uk/ugstatistics).
Anglo-Saxon, Norse, and Celtic

If you’re fascinated by medieval history, literature, and languages, and you relish the prospect of doing your own research using original source materials, this course – unique in the UK to Cambridge – will appeal.

A voyage of discovery
The history and culture of Anglo-Saxon England, Celtic languages and literature, or Viking exploits – Anglo-Saxon, Norse, and Celtic (ASNC) allows you to explore a range of cultures, and to look at history, language and literature side by side.

ASNC focuses on the history, material culture, languages and literature of the peoples of Britain, Ireland and the Scandinavian world in the earlier Middle Ages.

ASNC students discover medieval history while learning one or more languages and reading great works of literature in the original languages, such as the Old English poem Beowulf, the epic medieval Irish tale Táin Bó Cuailnge (The Cattle Raid of Cooley) and Icelandic sagas. Exactly which areas you study and to what depth is largely up to you, and to support your learning Cambridge has rare and exceptional resources to offer in the University Library, the College libraries, and in the Fitzwilliam and other museums.

What are we looking for?
No previous knowledge of the subject is expected or required; all languages are taught from scratch and we don’t assume that students have studied early medieval languages and literature side by side.

After ASNC
This unusual and challenging degree develops your powers of argument and sharpens your powers of analysis. It equips you for a wide range of careers where intellectual and analytical skills are important. ‘Asnc’ (as they like to be called) graduates can be found in a wide range of careers. Some take advantage of the specialist opportunities open to them and do research and teaching in schools and universities, or work in museums and libraries; while many others go into careers including journalism, publishing, banking, law, the Civil Service, industry and business, and even software development.

In two years I’ve studied a broad range of topics, most of which I’d never considered before, and students have lots of contact time with staff.

Clare

Course outline
Teaching is provided through lectures, classes, seminars and supervisions and you can expect between 10 and 15 hours of lectures and classes per week during Part I.

Years 1 and 2 (Part I)
Year 1
In the first year, you study the various disciplines which form the core of ASNC studies. There are no compulsory papers – you choose six subjects from a range of 16, and take an examination in four of them and departmental tests in the other two.

Historical subjects:
- Anglo-Saxon history
- Scandinavian history
- Gaelic history (Scotland, Ireland and the Isle of Man)
- British History (Wales, Brittany, Cornwall, the Pictish kingdoms and the North Britons)

Language and literature subjects:
- Old English
- Old Norse
- medieval Welsh
- medieval Irish
- medieval Latin
- palaeography (the study of manuscripts and handwriting)

Year 2
In your second year, you may continue to study your chosen subjects and take an examination in all six of them. Alternatively, you have the option to replace up to three of your first-year subjects with a dissertation and/or one or two papers from related courses – currently these include subjects from Archaeology, English and Modern and Medieval Languages.

Year 3 (Part II)
This is where you develop and use the skills you learned in Part I, exploring your chosen fields, and applying your newly acquired knowledge in original and imaginative ways.

You study four subjects selected from a range of 17 papers including, for example:
- The Conversion of Scandinavia
- Beowulf
- Germanic Philology

These are designed to give you the opportunity to pursue more detailed study in your chosen areas. You may replace one of your four Part II ASNC papers with a paper from another course. The range of subjects available varies each year but currently includes medieval English literature, medieval French literature, historical linguistics, North Sea archaeology, the archaeology of late antiquity and the Migration period, and a subject from the Faculty of History. You may also replace one of your Part II subjects with a Part I paper that you didn’t offer for the examinations at the end of your second year.

In addition, you write a dissertation of between 9,000 and 12,000 words on a specific subject of your own choice within the scope of the course.
Are you curious about humanity’s deep past? Human evolution and biology, ancient cultures and languages, early civilisations and how heritage affects identity and politics today are just some of the topics you can study on our Archaeology course.

Archaeology at Cambridge
Students at the Department of Archaeology are part of a diverse research community. Our course encompasses Archaeology, Assyriology, Biological Anthropology and Egyptology. Its flexibility means you can either specialise from Year 1, or opt for a broad start before concentrating on up to two subjects from the second year.

- Archaeology uses material evidence from molecules to monumental structures to explore the human past and understand past societies.
- Assyriology is the study of the languages, cultures, history and archaeology of ancient Mesopotamia (Sumer, Babylonia and Assyria).
- Egyptology is the study of the history, languages, society, archaeology and religion of ancient Egypt.
- Biological Anthropology investigates human evolution and diversity, biology and behaviour, and the interaction between biology and culture.

Teaching and resources
Our Archaeology degree is one of the most dynamic of its kind. Our staff are at the forefront of research, involving students through fieldwork and research projects. Our fantastic resources include purpose built laboratories, dedicated libraries and a well-equipped IT suite. In addition, the Museum of Archaeology and Anthropology and the Fitzwilliam Museum provide access to extensive collections of primary sources of world importance. We also have a dedicated professional field unit, the Cambridge Archaeological Unit.

After Cambridge
Our course offers the theoretical foundation and training in standard methods and specialised techniques required for academic and professional practice.

The intellectual versatility and transferable skills that our students develop – such as the ability to think critically, analyse texts, handle data and work collaboratively – mean they’re widely sought after by employers in many related and unrelated fields. Graduates have gone on to work in the commercial archaeological sector as well as museums, commerce, diplomacy, advertising, media, conservation, health and further academic study among others.

Course outline
In Year 1, you have between six and eight lectures and one or two supervisions each week, plus weekly language classes and/or practicals (where appropriate).

You’re assessed each year, principally through written exams but some papers include assessed practicals/fieldwork. Fieldwork from Year 2 is compulsory unless otherwise stated. Most students also write a 10,000 word dissertation in Year 3.

Year 1 (Part I)
You pick three from seven core archaeology, language and biological anthropology options. (Certain papers are advised for some Year 2 subjects – see details online. Your fourth can be another core subject paper, or you can choose a psychology, social anthropology, politics or sociology option. Students in Year 1 go on two-week training dig in Easter Term (optional or compulsory depending on the intended Part II track).

Year 2 (Part IIA)
You take four papers: Mesopotamian archaeology, Akkadian language, and two from other course options (one can be from Classics or HSPS). All students also write a dissertation.

Year 2 (Part IIB)
You take advanced Akkadian language and Mesopotamian archaeology papers; and one other core subject paper, or you can choose a psychology, social anthropology, politics or sociology option. Students in Year 1 go on two-week training dig in Easter Term (optional or compulsory depending on the intended Part II track).

Year 3 (Part IIA)
You complete four weeks of fieldwork in the summer before Year 3. All students study advanced archaeological thought, archaeology in the wider world and a Special Topic; plus one or two papers from options within this course, Classics or HSPS. All students also write a dissertation.

Year 3 (Part IIB)
You take two papers in theory and practice, and data analysis; one covering the archaeology of a particular period or region, and either another period/region paper or one from Classics or Human, Social, and Political Sciences (HSPS). Fieldwork consists of a week overseas at Easter.

You can pursue one of four single-subject tracks (see below) or one of two two-subject tracks – Archaeology and Biological Anthropology, or Assyriology and Egyptology (details online).

Year 2 and 3 (Part II)
You pick three from seven core archaeology, language and biological anthropology options. ( Certain papers are advised for some Year 2 subjects – see details online. Your fourth can be another core subject paper, or you can choose a psychology, social anthropology, politics or sociology option. Students in Year 1 go on two-week training dig in Easter Term (optional or compulsory depending on the intended Part II track).

Year 3 (Part IIA)
You take four papers: Mesopotamian archaeology, Akkadian language, and two from other course options (one can be from Classics or HSPS). You also undertake a four-week study tour and/or fieldwork.

Year 3 (Part IIB)
You take advanced Akkadian language and Mesopotamian archaeology papers; and one other core subject paper, or you can choose a psychology, social anthropology, politics or sociology option. Students in Year 1 go on two-week training dig in Easter Term (optional or compulsory depending on the intended Part II track).

Related courses
Asian and Middle Eastern Studies
Classics
Geography
History
Human, Social, and Political Sciences
Natural Sciences

Fact file
Duration
Three years – BA (Hons)

2017 entry
Applications per place: 2
Number accepted: 36

Typical offers require
A Level 4-6
BB-42 points, with 7% at Higher Level

Other qualifications
See p133-2
No specific subjects required by any Colleges

Useful preparation
Classics, Geography, History, a language (ancient or modern), science subjects, social science subjects

Admission assessment
At-interview written assessment, if interviewed (see p41 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges

Location
Map reference D (see p158-9)

Open days 2018
Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
Asian and Middle Eastern Studies
Classics
Geography
History
Human, Social, and Political Sciences
Natural Sciences

Useful preparation
Classics, Geography, History, a language (ancient or modern), science subjects, social science subjects

Admission assessment
At-interview written assessment, if interviewed (see p41 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges

Location
Map reference D (see p158-9)

Open days 2018
Cambridge Open Days – 5 July, 6 July (see p154)
Architecture

The only Cambridge degree that combines the intellectual challenges of both arts and sciences with the opportunity for creative design.

Exceptional learning environment
The Department of Architecture at Cambridge is an exciting place to study. Regularly lauded as one of the leading architecture schools in the world, students study under the guidance of world-renowned researchers and ground-breaking practitioners.

Creativity, curiosity and strong intellectual grounding are central to the course. Our innovative design programme – delivered by tutors working at the cutting edge of contemporary architecture – is balanced with outstanding teaching in the history and philosophy of architecture, contemporary culture and urbanism, as well as construction, structural design and environmental design.

Our small, friendly Department has a very good staff to student ratio, and the supportive community atmosphere gives students the opportunity to push the boundaries of the field and to extend their own abilities in exciting new directions. Facilities include a superb library, reprographics areas, workshops, studios and spaces for larger installations.

Professional qualification
Successful completion of our full three-year undergraduate course carries exemption from the Architects Registration Board (ARB)/Royal Institute of British Architects (RIBA) Part 1 – the first stage in qualifying as an architect.

The Department also offers a Masters in Architecture and Urban Design, which carries exemption from ARB/RIBA Part 2, and a ARB/RIBA Part 3 course (the final qualifying stage).

What we’re looking for
You must have an enthusiasm for both the arts and the sciences. The ability to draw and an interest in the history of art and architecture are essential, as is a knowledge of mathematics to at least a good GCSE standard.

Portfolio
Admissions Tutors want to see something that illustrates your interests, experience and ability in the visual and material arts. This may include drawings, paintings, sculpture and/or photography. See the Department website for more advice.

Careers and research
Many graduates continue into professional training, but some enter other creative fields or research. We have a long-standing tradition of research excellence, in areas such as history and philosophy of architecture, environmentally responsible design, architecture and the moving image, urban design and transport planning, and disaster relief.

Architecture at Cambridge doesn’t only deal with buildings – we think of people, places, materials, philosophy and history, and only then consider the actual building!

Kathryn

Course outline
You’re taught in our studio – where you have your own dedicated design space – two days a week, during which you’re set projects that require you to produce models and drawings to communicate your ideas. You’re supervised on studio work in individual tutorials and group critical reviews, which encourage you to explore different approaches and develop essential design skills. The resulting portfolio accounts for 60 per cent of your overall marks each year.

Lectures, classes and visits to completed buildings or buildings under construction/restoration cover the rest of the curriculum. In addition to the two studio days, in the first year you typically attend six or seven lectures each week, and three classes and three small-group supervisions each fortnight, for which you’re required to complete essays and undertake preparation.

Year 1 (Part IA)
The studio work introduces the possibilities of architecture, with an emphasis on understanding and developing proficiency in traditional modes of architectural representation – models, collage, perspectives, elevations, plans and sections. You also master basic CAD skills, used in studio presentations. A compulsory study trip abroad usually takes place during the Easter vacation.

You take five lecture-based papers:
- Introduction to Architectural History/ Theory (pre-1800)
- Introduction to Architectural History/ Theory (post-1800)
- Principles of Environmental Design
- Introduction to Architectural History/ Theory (post-1800)
- Fundamental Principles of Construction

Assessment is through coursework and written examinations.

Year 2 (Part IB)
You choose from various options for studio work, with projects ranging in scale from mapping studies and interior interventions, to reasonable-sized buildings. Emphasis is on integrating the technical skills learnt in Part IA and in the ongoing Part IB lectures with your studio output.

A voluntary study trip is usually offered.

In addition, you take four papers that build on your Part IA knowledge:
- Studies in History and Theories of Architecture, Urbanism and Design
- Principles of Construction
- Principles of Structural Design
- Principles of Environmental Design

Year 3 (Part II)
You choose from three studio options that vary in approach but all require you to produce a building design at the end of the year, the technical realisation of which is allied to a coherently framed conceptual approach. Again, a voluntary study trip is usually offered.

Four lecture-based papers together carry 20 per cent of your overall marks:
- Advanced Studies in Historical and Theoretical Aspects of Architecture and Urbanism
- Management, Practice and Law
- Advanced Studies in Construction Technology, Structural Analysis and Environmental Design Related to Case Studies
- Architectural Engineering (examined entirely by coursework)

A written dissertation of 7,000-9,000 words on a topic of your choice accounts for the remaining 20 per cent of your marks.

Kathryn
Asian and Middle Eastern Studies

You don’t need prior knowledge of the languages or cultures of East Asia or the Middle East to study them at Cambridge but you do need imagination, perseverance, curiosity and a sense of adventure.

Broaden your horizons
The areas you can study in the Asian and Middle Eastern Studies (AMES) course stretch from Japan in the East to Morocco in the West, and from classical times to the present day. By studying an AMES language and culture, you develop a set of practical skills and knowledge that can be used in many ways and you engage with different understandings of our shared world.

As you do not have to have studied AMES subjects at school, the best preparation is for you to explore for yourself what interests you about the language and culture you choose to study (see the Faculty website for suggestions).

Flexibility: our range of options
Our course is flexible and numerous options and combinations are available. You should indicate which language(s) you’re interested in studying in your SAQ (see p7).

- You can study Arabic, Chinese, Hebrew, Japanese or Persian.
- Chinese and Japanese cannot be combined with another language. However, those studying Japanese may be able to take Korean as an option in Year 4.
- You can combine Arabic, Hebrew and Persian with each other, or with a modern European language (if you have an A Level/IB Higher Level or equivalent in the European language) from Year 1, or with Hindi or Sanskrit from Year 2 (no more than two languages can be studied at one time).
- Persian must be combined with another Middle Eastern language or a European language from the Modern and Medieval Languages course in Year 1.

Chinese gives you China in its own words. You encounter a sophisticated civilisation and the most vibrant economy in the world today. You delve into its 3,500 years of recorded history, poetry and philosophy to understand how they shaped the tumultuous changes of modern times, and to engage with contemporary society.

While rooted in a vibrant cultural history, Japan is one of the world’s most dynamic societies, a leader in industry, technology and popular culture. On our course you gain unrivalled mastery of Japanese while developing in-depth understanding of Japan’s history, literature, society and politics.

Arabic is the language of the Qur’an and of a rich literature covering fields as diverse as the sciences, history and religious studies, and poetry. It’s the key to a medieval culture which kick-started the European Renaissance. Our course gives you access both to this and to the modern societies, cultures and thought fed by this heritage.

Persian is another great language of Islam with a world famous poetic tradition, and vibrant literary heritage. Our course introduces you to both the classical tradition and contemporary Iranian culture.

Hebrew offers classical (Biblical) and/or modern Hebrew and its literature, and the history and culture of Israel and the modern Middle East. You can also study Aramaic.
Asian and Middle Eastern Studies (cont.)

Our teaching
Good knowledge of the language(s) is central to our course. Part I (Years 1 and 2) gives a strong grounding, and in Part II (Years 3 and 4) you study advanced language so that by the end of it you can speak fluently and read confidently. Alongside the language(s), there’s a wide range of topics on offer (depending on language), from which you can choose according to your interests – history, literature, religion, anthropology, linguistics, film.

Living and learning abroad
The third year is spent abroad – a great opportunity to immerse yourself in the culture you’re studying and improve your language skills. Various Faculty-approved institutions are available. Chinese and Japanese students study at a university in the appropriate country. Arabic, Persian and Hebrew students have some choice of which country they go to and what they do. Students generally take an approved language course or study at a local university, and some combine this with voluntary work.

Versatility: your choice of careers
The range of career options open to graduates is vast. Besides those who go into research, many graduates use their subject directly in subsequent employment. Examples include the media, business and commerce, tourism, teaching overseas, the Civil Service (especially the Foreign Office), NGOs, or international scientific agencies.

Even if you choose not to stay in a related field, employers are often impressed by your choice to study a difficult language. Our graduates have also gone into banking, marketing and law.

The small class sizes mean you get to know your teachers and classmates really well, so there’s a real sense of community within the Faculty.

Sarah

For my dissertation, I was able to investigate any course-related subject attracting my attention, and pursuing those investigations at length was my degree high point.

Fraser

Course outline
Teaching is made up of lectures, seminars, language classes and supervisions – you can generally expect 12–14 hours of teaching each week.

You are assessed at the end of each year through written and oral examinations, and coursework. Depending on your choice of language(s), you take four to six papers in Years 1, 2 and 4, including a dissertation of 12,000 words in your final year. You spend Year 3 abroad. See the website for full course details.

If you combine a Middle Eastern with a European language, you study both roughly equally in Year 1 but after that you can balance them as you wish. If you combine both to Year 4, you spend Year 3 in the Middle East.

Years 1 and 2 (Part I)
In Year 1 (Part IA), you study your chosen language(s) intensively, in both written and spoken forms. You take introductory papers on East Asia or the Middle East, depending on the language(s) you’re studying.

In Year 2 (Part IB), you continue to study your chosen language(s). There are literature and history papers (compulsory for those taking Chinese or Japanese) and you also choose from a number of optional papers, some borrowed from other courses. The topics offered are subject to change but currently include:

- Chinese or Japanese – East Asian studies, East Asian cinema, linguistics
- Chinese – history of dynastic China, globalisation in China
- Arabic, Hebrew, and Persian – classical Islamic civilization, formation of the modern Middle East, the anthropology of Islam, linguistics, Islam, Judaism, and Hindu, modern Hebrew literature, Israeli culture, film

Years 3 and 4 (Part II)
In Year 3, you spend at least eight months abroad developing your language skills and your understanding of the culture you’re studying.

In Year 4, you write a dissertation and take four further papers, including at least one advanced language paper. You choose your other papers from a list of specialist options, some borrowed from other courses. Topics on offer change from year to year but currently include:

- Chinese – early and Imperial China, China during the second world war, modern Chinese literature, contemporary Chinese society, Chinese linguistics, China in the International Order
- Japanese – Classical Japanese, contemporary Japanese society, Japanese politics and international relations, Korean
- Arabic, Hebrew and Persian – religion and politics in the Middle East, the formation of modern Israel, Islamic art and architecture, Islam, Judaism, linguistics, Sanskrit, Hindi, classical and modern literatures of Arabic, Hebrew and Persian, Israeli culture, film

Fact file

Duration
Four years – BA (Hons) (Year 3 spent abroad)

2017 entry
Applications per place: 4
Number accepted: 42

Typical offers require
A Level A/AA
IB 40–42 points, with 7/7s at Higher Level

Other qualifications
See p151-2
No specific subjects required by all Colleges

Some Colleges require
A Level/IB Higher Level in the European language (if you want to combine with a European language)

Admission assessment
Pre-interview written assessment (see p43 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges

Location
Map reference 5 (see p158-9)

Open days 2018
16 March – booking required, see the Faculty website
College open days (arts) Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
History 72
History of Art 76
Linguistics 84
Modern and Medieval Languages 93
Theology, Religion, and Philosophy of Religion 110
Chemical Engineering

Chemical engineers design and operate industrial processes that convert raw materials into valuable products. The need for more sophisticated products and sustainable processes means chemical engineers are in great demand.

After Cambridge

Within chemical engineering there are many well-paid career opportunities. You might work as a field engineer, be part of a research team, or become a senior manager within industry. Chemical engineers also secure jobs outside the discipline because of their broad range of skills. About 50 per cent of our graduates go into the chemical, process and food industries, 20 per cent go into finance and management, and 15 per cent go on to further education and research.

I like the real world focus of the course, and the new building for the department is great.

Rebecca

Course outline

You’re taught primarily through lectures, which are supported by projects, laboratory classes, supervisions and coursework. In a typical week you attend 10 lectures and have two supervisions. You also undertake fortnightly projects. Assessment is by written exams during the final term of each year, and coursework which makes an increasing contribution to your marks each year.

Table of contents

Years 1 and 2

Year 1

Chemical engineers spend their first year studying either Engineering or Natural Sciences. These routes provide equally good preparation for becoming a chemical engineer and are taken up by a similar number of students.

Year 2

From Year 2, you’re based within the Department of Chemical Engineering and Biotechnology. You study compulsory topics within five themes:

• Fundamentals – fluid mechanics, heat transfer, thermodynamics
• Process operations – reactors, separators, biotechnology
• Process systems – safety, economics
• Mathematical methods – mathematics
• Enabling topics – depending on your first-year subject, you have additional lectures and practicals on either chemistry or mechanical engineering

You also take laboratory classes and undertake regular assessed project work. Towards the end of the year, you perform the mechanical design of an item of process equipment such as a heat exchanger.

Year 3

The third year includes further compulsory topics within four themes:

• Fundamentals – fluid mechanics, heat transfer, thermodynamics
• Process operations – reactors, separators, bioprocessing, particle processing
• Process systems – process dynamics and control, process synthesis, safety
• Enabling topics – materials, mathematics

After the written exams in the third term, you undertake a group project that lasts five weeks of full-time work to design a modern industrial process. You consider all aspects of engineering design (including specification of equipment and control procedures), safety, environmental impact and economic assessment. The design project brings together all the taught subject matter whilst giving you the opportunity to work in a team on an open-ended problem.

Year 4

You undertake a project on chemical product design and take a compulsory paper on environmental aspects of chemical engineering. You choose six further topics from a list of optional papers which changes every year to reflect the research interests of academic staff. Some are advanced chemical engineering topics – past examples have included pharmaceutical engineering, electrochemical engineering, rheology and processing, and computational fluid dynamics – and some are broadening material topics from outside the discipline (past examples have included healthcare biotechnology, a foreign language, and entrepreneurship).

In addition, you undertake a research project. This might involve experimental, theoretical and/or computational work. Some projects support ongoing Department research, while others are ‘blue sky’ investigations leading to new research programmes. Successful projects sometimes lead to students becoming authors of publications in scientific literature.

Chemical Engineering at Cambridge

Our course concentrates on the scientific principles that underpin chemical and biochemical engineering. The aim is to produce graduates that meet the needs of today’s process industries by providing a thorough understanding of the subject, technical competence and transferable skills. The underlying theory is complemented by lectures and projects that teach process and chemical product design.

We have strong links with industry. The course is supported by a consortium of 10 industrial companies which provide input on content and assist with teaching. These links also mean that there are opportunities for vacation placements outside the discipline because of their broad range of skills.

Teaching and facilities

Our Department enjoys a reputation for excellence in its teaching and research, regularly topping national league tables. The Department moved to a new purpose-built teaching and research, regularly topping national league tables. The Department moved to a new purpose-built building in 2016 that provides the highest quality teaching and research facilities.

Qualifications and accreditation

It’s possible to graduate with a BA degree after three years. However, virtually all students stay for the fourth year leading to the BA and MEng degrees (progression to the fourth year is dependent on satisfactory performance). The four-year course is accredited by the Institution of Chemical Engineers, meaning that after graduation you can apply for Chartered Engineer status once you have four years of relevant experience without taking further exams.

Related courses

Engineering 65
Natural Sciences 98
Classics

Classics at Cambridge isn’t just studied as a period in the past, it also looks at how classical culture, language and philosophy have affected the history of Western civilisation right up to the present day.

Classics at Cambridge

The Faculty of Classics is one of the most dynamic of its kind, with an exceptional reputation for teaching and research.

Our course encompasses the history, culture, archaeology, art, philosophy and linguistics of classical antiquity and the study of original texts and artefacts. You can either specialise in a particular field or retain the breadth with which the course starts.

The courses

We offer a three-year course and a four-year course. The three-year course is usually for students with A Level/IB Higher Level Latin or equivalent (regardless of whether they have Greek). We offer an intensive ancient Greek programme for those with little or no Classical Greek.

The four-year course is for those with little or no Latin, and offers a preliminary year which focuses on Latin language and Roman culture. Years 2, 3 and 4 are identical to the three-year course. However, most go into other careers – in law, the media, accountancy, the Civil Service, industry and business. Our graduates include bankers, barristers, solicitors, accountants, actors, musicians and theatrical artistic directors.

Careers

Employers have a high opinion of Classicists because they’re hard-working, articulate, accurate, efficient and multi-skilled, take new tasks in their stride and can master situations intelligently.

Some graduates go into research and teaching in schools and universities, or work in libraries and museums. However, most go into other careers – in law, the media, accountancy, the Civil Service, industry and business. Our graduates include bankers, barristers, solicitors, actors, musicians and theatrical artistic directors.

Classics here deserves its world-class reputation – ancient languages taught by the field’s best teachers, and opportunity to study everything from warfare and politics to architecture and philosophy.

Emma

Course outline

During Part I, you have an average of eight to 10 lectures a week, and language classes as needed. You also have at least two supervisions a week in which you discuss your work.

In Part II, you may have Faculty seminars as well as lectures, while your College supervisions give you the opportunity to research essay topics of your choice in depth.

Assessment is by end of year exams, although in Year 3 you can substitute an exam for a dissertation.

Preliminary Year (four-year course)

You learn to read Latin confidently through language study and the reading of texts from the Roman world. You also study Roman culture, submit essays for assessment, and undertake some preparatory work for taking up Ancient Greek at the beginning of the next year.

Year 1 (Part IA)

Written texts are a major source of evidence for classical antiquity, so you study texts in the original Greek and Latin from the most familiar periods of ancient literature by central authors such as Homer, Euripides, Plato, Virgil, Ovid and Cicero.

You also study elements of ancient history, archaeology, art, philosophy, philology and linguistics to build the broadest possible understanding of the ancient world and our relationship to it. Reading and language classes directed by specialist language teachers, as required, extend your knowledge of the ancient languages. End of year exams test your linguistic and literary comprehension and essay writing skills.

Year 2 (Part IB)

You take six papers, including a paper from each of the following four compulsory groups:

- Greek translation
- Latin translation
- Greek literature, eg Athens on Stage
- Latin literature, eg Roman Youth

The remaining two papers are chosen from four on other subjects:

- history
- art and archaeology
- philosophy
- philology

Further optional papers on prose or verse composition in both languages are available if you wish to develop your confidence and creativity in manipulating language.

Year 3 (Part II)

You can specialise within one discipline (eg archaeology) or construct a wide-ranging course particular to your individual strengths and interests. You choose four papers from a broad range of options, including:

- literature, eg Women and Greek Literature
- philosophy, eg Aristotle’s World, from Turtles to Tragedies
- history, eg Roman Religion: Identity and Empire
- archaeology, eg The Poetics of Classical Art
- comparative linguistics
- Greek tragedy and politics
- language, eg Greek in the Bronze Age
- a multidisciplinary paper, eg Rome – the Very Idea
- papers from another degree course

At the end of the year, you take exams in these subjects, or you can substitute one paper with a dissertation on a subject of your choice within the field of Classics. Past dissertations have covered:

- cross-dressing in antiquity
- the phenomenon of Asterix
- classical influences on contemporary American poetry
- Homer and Virgil
- comparative linguistics
- the nature and role of pleasure in human life
- roman and late antique architecure
- language and archaeology in Roman Egypt

Fact file

Duration
Three or four years — BA (Hons)

2017 entry
Applications per place: 2
Number accepted: 102

Typical offers require
A Level A* A A
IB 40–42 points, with 7/7 at Higher Level

Other qualifications See p151-2

THREE-YEAR COURSE

All Colleges require
A Level/IB Higher Level Latin
(A Level/IB Higher Level Classical Greek is accepted as a substitute at some Colleges)

FOUR-YEAR COURSE

No specific subjects required by any Colleges

Useful preparation
Classical Civilisation, English (Language or Literature), History, a language (ancient or modern)

Admission assessment

At interview written assessment, if interviewed (see p43 and www.cam.ac.uk/assessment)

Colleges

Available at all Colleges

Location
Map reference S (see p158-9)

Open days 2018

16 March (Oxford and Cambridge Colleges open day in Cambridge) – booking required, see the Faculty website

College open days (arts)

Cambridge Open Days – 5 July, 6 July (see p54)

Related courses

Archaeology 46
English 68
History 72
History of Art 76
Linguistics 84
Philosophy 106
Computer Science

Computer science is a fast-moving field that brings together disciplines including mathematics, engineering, the natural sciences, psychology and linguistics. Our course provides you with skills highly prized in industry and for research.

Computer Science at Cambridge
Cambridge was a pioneer of computer science and continues to lead its development. There are more than 1,000 specialist computing and advanced technology companies and commercial laboratories in the area (known as ‘Silicon Fen’), and many support our teaching and employ our graduates.

Our course is broad and deep – giving skills to create future technology. All aspects of modern computer science are covered, along with the underlying theory and foundations in economics, law and business. You also develop practical skills, such as programming (in various languages, eg ML, Java, C/C++, Prolog) and hardware systems (eg chip design using Verilog).

Facilities and work experience
Our students benefit from the Department’s cutting-edge research and extensive facilities. The purpose-built Department of Computer Science and Technology is packed with the latest technology, advanced lecture theatres, dedicated practical rooms, a well-stocked library, and even a café.

Group projects during the course, where small teams of students deliver a product to an external client, ensure relevant industrial experience. Projects often lead to commercialisation, licensing or employment.

Accreditation
Our course is accredited by the British Computer Society (BCS) and contributes towards professional membership (MBCS) and chartered status (CEng, CSci).

Careers
Our graduates’ knowledge and skills embody principles which will outlast today’s technology, making them highly sought after by industry and commerce alike. For example, companies at our annual recruitment fair collectively seek to recruit more than our entire annual number of graduates.

About half of our students go on to work in the computer industry, while a fifth pursue further study and careers in teaching and research. Many graduates have founded successful companies while others have easily found employment in software, hardware, the games industry, finance, communications and commerce.

To get an idea of what’s currently on offer to our graduates, visit: www.cst.cam.ac.uk/supporters-club

I’d never studied Computer Science formally, so didn’t know what to expect. I’m convinced I made the best choice and can’t imagine enjoying another course more!

Chloé

Course outline
Teaching is provided through lectures, practical classes and supervisions. In Year 1, you can typically expect 20 hours of teaching every week, including up to 12 lectures and practical classes.

Assessment is by three-hour examinations taken in the final term each year and a dissertation in Year 3. Practical work is undertaken and assessed in all years of the degree programme.

Please note that successful applicants are required to do some preparatory reading and complete a pre-arrival online course before the start of the first term. Students will be sent details after their place is confirmed.

Year 1 (Part IA)
You take four papers, including two compulsory Computer Science papers – covering topics such as foundations of computer science (taught in ML), Java and object-oriented programming, operating systems, and digital electronics – and at least one Mathematics paper.

The fourth paper is chosen from:

- a third Computer Science paper required in Year 2 (if not taken in Year 1)
- one of Chemistry, Earth Sciences, Evolution and Behaviour, Physics or Physiology of Organisms from Natural Sciences.

Alternatively, you may take the compulsory first-year Computer Science papers alongside two of the first-year papers of the Mathematics course (see p7) – known as Computer Science with Mathematics.

You should indicate your first-year combination – Computer Science, Computer Science with Natural Sciences, or Computer Science with Mathematics – in your SAQ (see p7).

Year 2 (Part IB)
You take four papers, spanning core topics:

- theory – including logic and proof, computation theory
- systems – including computer design, computer networking

You also undertake a group project which reflects current industrial practice.

Students who don’t take the third Computer Science paper in Year 1 must take it in Year 2, instead of one of the Part IB papers (which must then be taken in Year 3).

Year 3 (Part II)
You choose 15 topics from a large selection which allows you to concentrate more on systems, theory or applications (some options may not be available to students taking a Year 2 paper in Year 3).

Topics usually include:

- mobile and sensor networks; principles of communication
- specification and verification of hardware and software, semantics
- human-computer interaction, natural language processing, e-commerce
- quantum computing, bioinformatics
- advanced artificial intelligence, advanced graphics
- mobile and sensor networks, principles of communication
- theory or applications (some options may not be available to students taking a Year 2 paper in Year 3).

All students also work on a substantial project demonstrating their computer science skills, writing a 12,000-word dissertation on it. Projects are often connected with current Cambridge research and many utilise cutting-edge technology.

Year 4 (Part III, optional integrated Masters)
The fourth year is designed for students considering a career in academic or industrial research. You explore issues at the very forefront of computer science and undertake a substantial research project.

Progression to Part III is dependent on Part II examination achievement. Successful completion of Part III leads to the MEng qualification, as well as the BA degree attained at the end of Part II.
Our Economics course provides a rounded, rigorous education in economics which is valuable for a wide range of career paths.

Economics at Cambridge

Our course provides a sound understanding of core, pure and applied economics. However, while you study economics in considerable depth in this specialised degree, you employ ideas and techniques from many other disciplines too, including mathematics and statistics, history, sociology and politics. Therefore, our graduates are extremely well-qualified for a wide range of jobs and further courses.

Teaching and resources

Past and present Faculty members, such as Alfred Marshall and John Maynard Keynes, have played a major role in the subject’s development and several have been awarded the Nobel Prize in Economics (Sir John Hicks, James Meade, Sir Richard Stone, Sir James Mirrlees and Amartya Sen). The present Faculty remains committed to using economics to improve public policy and recent staff have been active on, among other bodies, the Monetary Policy Committee of the Bank of England and the Competition Commission, and advise international agencies such as the United Nations, World Bank, IMF and OECD.

Other benefits for Cambridge Economics students include access to an extensive range of statistical databases and software, and the Marshall Library of Economics, which holds a comprehensive collection of books, journals and other papers in economics. The student-run Marshall Society organises social events and informal lectures from distinguished visiting speakers.

Careers and research

At Cambridge, you develop skills in understanding complex arguments; analysis of practical issues and of data, and effective communication. Such skills are valuable in many careers, but particularly in professional, financial and managerial occupations. They also provide an advantageous foundation for numerous Masters degree courses.

Many graduates go on to professional training in chartered accountancy, actuarial work and similar fields. Others are employed by financial institutions, or as professional economists in industry, government and management consultancy.

I’d definitely recommend Economics here. The teaching’s great and the course is extremely broad in your first year, then you can specialise more in the areas you enjoy.

Aret
Education

Education is a rewarding interdisciplinary degree that allows you to combine the study of educational and social issues with one of three specialist areas: psychology of learning, international development or English, drama and the arts.

Education at Cambridge

Education is one of our most powerful means for change and growth in the modern world. On our course, you follow one of three tracks, studying Education alongside your chosen field of interest, which will include the opportunity to study in other Faculties relevant to your chosen track.

• The Education, Psychology and Learning track focuses on education from a psychological perspective; exploring human development and education in a variety of social and cultural environments.
• In Education, Policy and International Development you consider historical and contemporary discussions concerning these areas, and education’s role in economic and social change.
• Education, English, Drama and the Arts is the study of English literature with key issues in education – far beyond ‘schools’; it is a lens through which we can consider the whole of society.

Further study and professional qualifications

Our course provides excellent preparation for a wide range of Masters and doctoral research programmes, both at Cambridge – each track has close links to related MPhil programmes within the Faculty – and elsewhere. Alternatively, for those intending to teach, the course provides a foundation from which to proceed to some initial teacher training courses (e.g. a PGCE).

After Cambridge

The career options for graduates are extremely varied and they find employment in a wide range of occupations in the UK and abroad. As well as further study and teaching, our students have gone into research, educational psychology and neuroscience, publishing, and the Civil Service. Others now work in government policy and administration, the media, theatre, heritage and museum education, HR, business and consultancy, charities and NGOs, and international development.

Facilities and resources

The Faculty of Education has excellent resources and state-of-the-art research facilities, including a psychology laboratory and a library that houses one of the UK’s best education collections. Active research forms the foundation of our teaching so you’re taught by academics at the forefront of their fields and who specialise in cutting-edge research.

Education as a course and as a concept goes far beyond ‘schools’: it is a lens through which we can consider the whole of society.

Course outline

In your SAQ (see p7) you should indicate which track you’re interested in studying.

You attend four to six lectures and seminars, and one or two hours of supervision per week in the first year.

You’re assessed at the end of each year. Depending on the papers studied, this will be through coursework, written examination, or a combination of both. In the third year, all students also submit a dissertation.

Year 1 (Part I A)

You take four papers, including two compulsory Education papers:

• Critical Debates in Education – introducing major themes in education and Faculty research.
• Education, Psychology and Learning – Learning and Human Development, and Introduction to Psychology.

Your two remaining papers are determined by the track you’re following:

• Education, Policy and International Development – Education, Global Inequalities and Social Justice; and a paper from choices in the Human, Social, and Political Sciences (HSPS) and Geography courses.
• Education, English, Drama and the Arts – Poetics, Aesthetics and Criticism; and either Drama Production and its Contexts or Literature and Culture.

Year 2 (Part IB)

In Year 2, you take five papers. Two are compulsory – Designing Educational Research (a project in research design), and The Emergence of Educational Thinking and Systems (covering historical and philosophical perspectives on key aspects of education) – and you choose your third from several other education topics.

Your other two papers are track-dependent:

• Education, Psychology and Learning – Formal and Informal Contexts of Learning, and Social and Developmental Psychology.
• Education, Policy and International Development – International Issues in Inclusion and Diversity in Education, and a paper from either the HSPS or Geography courses.
• Education, English, Drama and the Arts – two papers: chosen from International Literatures, Arts and Cultures, Theatre Practice and Production, a dissertation on a film, drama or English literature topic, or the history of English drama, or Shakespeare

Year 3 (Part II)

You submit a dissertation of 8,000-10,000 words, then take a further four papers. Two of these are on particular issues in education.

The next is a track-specific paper:


For your final paper, you can take another ‘issue in education’ paper, or choose a paper from options in other relevant courses.
Engineering

Engineering is about designing processes and making products to solve real-world problems. Our course enables you to develop your engineering knowledge, skills, imagination and experience to the highest levels in readiness for your future career.

Engineering at Cambridge

The Cambridge course is unique. It allows you to keep your options open while equipping you with all the analytical, design and computing skills that underpin modern engineering practice.

Part I (Years 1 and 2) provides a broad education in engineering fundamentals, enabling you to make a genuinely informed choice about the area in which to specialise (many students change direction as a result).

Part II (Years 3 and 4) then provides in-depth training in your chosen professional discipline.

Department and facilities

The Department is a leading international centre for research, consistently ranked the highest amongst British universities. We also have strong links with industry, with many research projects funded by industrial companies.

Our facilities are excellent: the new Dyson Centre for Engineering Design provides access to traditional hand and machine tools, as well as modern computer-controlled machinery and rapid prototyping; the Design and Project Office is equipped with more than 80 workstations; and the library has 30,000 books and takes about 350 journals. The Department’s Language Programme offers specialised courses at all levels in French, German, Spanish, Chinese and Japanese.

Industrial experience

You’re required to complete six weeks of industrial experience by the end of the third year, obtained by deferring entry or during vacations. Our full-time Industrial Placement Co-ordinator helps deferred entrants and undergraduates to find suitable placements (in the UK and abroad) and sponsorship.

Exchange programmes

A small number of students spend their third year studying abroad through our exchange schemes with École Centrale Paris and the National University of Singapore (NUS).

Accreditation

The course is accredited by the Engineering Council and by all the major institutions, including the Institutions of Mechanical Engineers (IMechE), Engineering and Technology (IET), Civil Engineers (ICE), and Structural Engineers (IstructE), the Institute of Measurement and Control (InstMC), the Institute of Highway Engineers (IHE), the Chartered Institution of Highways and Transportation (CIHT), the Institute of Physics and Engineering in Medicine (IPEM), and the Royal Aeronautical Society (RAeS). An appropriate combination of Part II papers is required in each case.

The flexibility of the Cambridge course means you don’t commit yourself to one particular area before studying them at degree level.

David

Continued overleaf
Engineering (cont.)

Careers
When you graduate, you’re fully qualified in your chosen area, knowledgeable across the range of engineering disciplines, and able to apply new technologies in novel situations, giving you an advantage over engineering graduates from other more narrowly focused courses. Prospects are typically excellent, for example only three per cent of our students who graduated in 2016 were still seeking employment or further study after six months.

The students on the Engineering course are very friendly, and you get to know lots of people by working on labs together.

Liz

Entry requirements for Engineering

All Colleges require A Level/IB Higher Level Mathematics and Physics
Some Colleges require AS or a Level Further Mathematics; A Level/IB Higher Level in a third science/mathematics/technology subject, STEP (see p152)
A Level Further Mathematics is strongly encouraged (required by some Colleges). If unavailable or you’ve recognised its desirability too late, we’d advise you to do as much additional pure maths and mechanics as possible, eg by taking stand-alone units or Further Mathematics AS Level.

All Colleges, except Trinity, welcome applications from students taking A Level Mathematics and a suitable vocational qualification, eg a BTEC Higher National Diploma in an engineering discipline. Applicants are expected to achieve the highest possible grades in A Level Mathematics and the vocational qualification. Those taking the Single Award Applied A Level in Engineering or the Principal Learning components of the Advanced Diploma in Engineering must also be taking A Levels in Mathematics and Physics. The Level 3 Certificate in Mathematics for Engineering is a suitable alternative to A Level Mathematics for these purposes. See the Department website for details.

Some Colleges encourage Engineering applicants to defer entry. See the Department website for details.

The average starting salary of Cambridge Engineering graduates in 2016 was £31,500.

Our students are in great demand and they go on to careers in all the major industrial and commercial sectors. Positions currently held by some of our graduates include graduate engineer at Mott MacDonald, program manager in emerging markets operations at Google, project engineer at Atelier Ohe, heat management engineer at McLaren Automotive, associate professor of aeronautics and astronautics at MIT, and environmental engineer at Water Environment Ltd.

Course outline
Teaching is provided through a mixture of lectures, practicals, projects and supervisions, and in Year 1 you can typically expect around 22 hours of teaching each week. You’re assessed each year through coursework and written exams.

A few students graduate after three years with the BA (Honours) degree. However, most continue to the fourth year (Part IIIB), successful completion of which leads to the BA and MEng degrees. Progression to Part IIIB is dependent on achievement in Parts IIB and IIA.

Year 1 (Part IA)
The broad foundation of the first two years (Part I) gives you an understanding of the basic principles of a wide range of subjects, together with an appreciation of the external pressures under which these ideas are likely to be applied.
In Year 1, you take four papers and sit a three-hour written exam in each:
- Mechanical Engineering
- Structures and Materials
- Electrical Engineering
- Information Engineering
- Mathematical Methods
- Thermofluid Mechanics
- Business Economics
- Electrical and Information Engineering

You also undertake several coursework activities and projects on topics including structural design, product design, presentation skills, drawing, laboratory experiments and computer programming.

Year 2 (Part IB)
You study eight papers on core subjects at a more advanced level:
- Mechanics
- Structures
- Electrical Engineering
- Information Engineering
- Materials
- Mathematical Methods
- Thermofluid Mechanics
- Business Economics

In the third term, you select two topics from seven engineering disciplines, or one engineering topic plus a language option. These topics are application-focused, emphasise engineering design and introduce the more specialised work of the third year.

Coursework includes laboratory experiments and computing exercises. Several experiments are linked around the common theme of earthquake-resistant structures. A highlight of the year is the compulsory integrated design project where you work in teams of six to design and build robot vehicles which are then tested against each other.

Year 3 (Part IIA)
Professional specialisation begins in earnest and you study 10 papers from an extensive portfolio, from which a core is associated with one of the following disciplines:
- Aerospace and Aeronautical Engineering
- Bioengineering
- Civil, Structural and Environmental Engineering
- Electrical and Electronic Engineering

Alternatively, you can choose (General) Engineering, in which there are fewer restrictions on paper combinations.

In addition, you take an Extension Activity (selected from several topics, usually relevant to your professional discipline) and, in the final term, choose two from a variety of design and computer-based projects or projects in a foreign language.

Year 4 (Part IIB)
In Part IIB, further specialisation is possible and you select eight papers from nearly 100 options which vary each year. These papers benefit from the Department’s research and are taught by experts in the particular field.

A major individual project occupies about half of your time. Many projects are associated with current Department research and have direct industrial input and application. Recent projects include super-tall timber high-rise design, nanotubes and graphene for polymer optoelectronics, a fitness predictor for racing cyclists, and whole-system design of tidal turbines.

Fact file

Duration
Four years – MEng

2017 entry
Applications per place: 7
Number accepted: 312

Typical offers require
A Level AAB, 126-138 points, with 776 at Higher Level
IB Other qualifications See p151-2
See box opposite for subject requirements

Admission assessment
Pre-interview written assessment (see p154 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges

Location
Map reference E (see p158-9)

Open days 2018
College open days (sciences) Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
Archaeology 48
Chemical Engineering 54
Computer Science 58
Manufacturing Engineering 117
Natural Sciences 98
If you have a passion for literature, we have a challenging course that will inspire you in your reading and develop your critical and imaginative abilities.

**English at Cambridge**
Over the centuries, many writers have studied in Cambridge: Spenser, Marlowe, Milton, Wordsworth, Coleridge, Byron, Tennyson, Forster, Plath, Hughes, Byatt and Zadie Smith. When established, the Cambridge course was considered daringly innovative and this ethos continues to shape teaching and research.

Today’s course balances a strong grounding in the core of English literature with the chance to explore literature from around the world, other art forms, the English language, and related intellectual traditions.

**Teaching and resources**
You are taught by some of the most eminent writers and thinkers who, between them, teach and research almost every aspect of literature. We have no set approach beyond instilling the valuable skills of critical thinking, scholarly rigour and good writing.

You have access to the vast resources of the University Library; and to the Faculty library, which houses around 80,000 books and provides computer facilities, skills training and welcoming features such as ‘Tea @ 3’. Our modern faculty building also includes a drama studio and garden. Socially, many English students pursue interests in creative writing, journalism and the performing arts.

**Course outline**
Teaching is provided through lectures, seminars, and small-group supervisions and classes.

You typically attend at least six hours of lectures or seminars, and two to three hours of individual, paired or small-group supervision each week. You normally write one or two short essays per week which you then discuss with your supervisor.

As well as unseen exams, there is a compulsory dissertation and over the three years you can replace three more of the written exams with coursework. Prizes are awarded for the best work.

**Years 1 and 2 (Part I)**
You are introduced to the full range of English literature from the Middle Ages to the present day. There are few set texts, so that while you must study widely, you can also focus on topics of interest to you.

Over the first two years, you take two compulsory papers:

- English Literature and its Contexts 1300–1550
- Shakespeare

And you choose four from the following:

- Practical Criticism and Pragmatic Practice
- Early Medieval Literature and its Contexts 1066–1138
- English Literature and its Contexts 1500–1700

One or two of the last three optional papers can be replaced with coursework (one dissertation and one portfolio of essays).

Subject to certain restrictions, you are also able to take papers from the Anglo-Saxon, Norse, and Celtic; Classics; or Modern and Medieval Languages courses. Further details of these papers are available on the Faculty website.

**Year 3 (Part II)**
You take two compulsory papers:

- Practical Criticism
- Tragedy, which ranges from ancient Greek drama to contemporary writing

You also write a compulsory dissertation (of 6000–7500 words) and either submit a second dissertation (of 4000–5000 words) or choose two optional papers.

The optional papers change regularly – the following are available in 2017/18:

**Chaucer**
- Medieval English Literature 1666–1900
- The Medieval Supernatural
- Material Renaissance
- Lyric
- Modernism and the Short Story
- English Morality

**Shakespeare**
- English Literature and its Contexts 1660–1870
- English Literature and its Contexts 1820–1945
- English Literature and its Contexts 1870–Present

**American Literature**
- Postcolonial and Related Literature
- History and Theory of Literary Criticism
- Literature and Visual Culture
- Contemporary Writing in English
- Early Modern Drama 1588–1642
- Special Period of English Literature 1847–72

Subject to certain restrictions, it’s possible to take papers from the Anglo-Saxon, Norse, and Celtic; Classics; or Modern and Medieval Languages courses. Further details of these papers are available on the Faculty website.

**Different lecturers cater for a wide range of interests and subjects. There’s something for everyone, and a healthy emphasis on pursuing your own interests that’s intellectually liberating.**

*Camilla*
Globalisation, environmental economics, conservation and ecology, climate change, glaciation, volcanology, the future of developing regions, cultural differences – just some of the topics you can study on the Cambridge Geography course.

A wider world
All societies rely on relationships with each other and the physical environment. Increasingly these are fragile interdependencies presenting intellectual and practical challenges. Our Geography course tackles these issues from a broad base, but also allows you to specialise.

Facilities and resources
We have one of the UK’s largest geography libraries, containing around 20,000 books, journals and periodicals, and the Scott Polar Research Institute is an integral part of the Department. There are extensive computing resources, where you receive formal teaching in geographical information technology including Geographical Information Systems and remote sensing, and the Department’s intranet provides further online resources.

Fieldwork and travel
Fieldwork is an important part of our course and there are several one-day excursions and field trips in Years 1 and 2. A compulsory field class in Year 2 leads to a piece of assessed practical work. Recent locations include Switzerland, Ireland, Germany, Denmark, Morocco and Spain. Some financial help is available but students are required to contribute to the cost of field trips.

Your Part II dissertation requires your own research, usually carried out in the summer vacation following your second year. Dissertation subjects and locations vary widely – some students travel abroad, others stay in the British Isles.

Course outline
You typically have six to eight lectures each week (with associated reading). In addition, you normally have three supervisions a fortnight at which you discuss a topic, usually following preparatory reading and essay writing. In the first and second years, you also have laboratory or practical classes, and field classes.

Year 1 (Part IA)
You’re introduced to key themes and issues by studying two core papers:
- **Human Geography – topics include:** globalisation; changing economic systems and ideas; ecological, economic and political perspectives on sustainability and development.
- **Physical Geography – topics include:** tectonics; vulcanism; coastal processes; glacial processes; Quaternary climate change; biogeography; atmosphere and climate

You’re assessed by one written examination for each paper.
You also submit Geographical Skills and Methods projects that cover numerical methods; survey techniques; documentary and archival data; spatial data; and field, laboratory and desk-based skills.

Year 2 (Part IB)
All students take a compulsory Living with Global Change paper addressing key concepts and current issues in geography, assessed through both coursework and written examination. In addition, you can begin to specialise and select three papers from a choice of six (also assessed by a combination of coursework and examination). Each year three human geography papers and three physical and environmental geography papers are available. The lists below give examples of Part IB papers that may be offered.

**Human geography:**
- Austerity and Inequality
- Development Theories, Policies and Practices
- Citizenship, Cities and Civil Society

**Physical and environmental geography:**
- Glacial Processes
- Biogeography
- Environmental Systems and Processes: Remote Sensing

Building on Part IA Skills and Methods, you also undertake project work involving field, lab and computer skills and techniques.

You participate in a one-week residential field class that contributes to your final year dissertation research by inspiring your choice of topic and developing specific field research skills. Following the field class, you submit a report on it and a dissertation proposal as part of your second-year assessment, along with statistical/spatial data analysis coursework and written examinations.

Year 3 (Part II)
You can either specialise further or maintain a balance across the subject as a whole. You select four IB papers that may be offered.

**Human Geography – topics include:**
- The Geographies of Global Urbanism
- Political Ecology in the Global South
- Landscape and Power
- Muddy Coasts and Estuaries
- Biogeography
- Glaciology
- Quaternary Climates and Environments

**Physical Geography – topics include:**
- The Political Geography of Postcolonialism
- Geographies of the Arctic
- Environmental Knowledge and the Politics of Expertise
- Volcanology
- Political Apparatus: Geographies of Food and Power

You also write a dissertation of 10,000 words on a topic of your choice, which you start work on during the summer between Years 2 and 3. The topic must be defined by the second term of Year 2 and the proposal is assessed as part of your second-year coursework.

Joe
History

Also History and Modern Languages, and History and Politics.

Our History course offers a huge range of options that span three millennia and circle the globe. In fact, you have the opportunity to investigate practically any period or aspect of history that interests you.

Across centuries and continents
Cambridge has one of the largest and best history faculties in the world, and our course reflects the quality and breadth of interest of our teaching staff. The History degree gives you the opportunity to explore the past from many different angles – including political, economic, social and cultural history – and to explore the interaction between history and other disciplines, such as politics, anthropology and archaeology.

There’s ample scope throughout to pursue personal interests and experiment with different historical approaches. Some paper options are shared with other courses, such as Asian and Middle Eastern Studies and Classics, and specialist papers allow you to work with source materials as varied as Hollywood movies and Renaissance art.

Facilities and resources
Our major resource is our teaching staff of more than 100 leading experts. In recent years Cambridge has consistently been among the top three of the world’s best universities for History in the QS World University Rankings, and both the Times and Guardian currently rank our course the best in the UK.

The Seeley Library (one of the largest history libraries in the world) and the nearby University Library mean that finding the right book is rarely a problem, and there is a wealth of rare materials and manuscripts suitable for students’ research. All undergraduate historians (not just those taking History and Modern Languages) are also encouraged to take up or improve foreign languages, and they have access to both the University Language Centre and specialist language teaching.

Careers and research
Cambridge historians acquire a range of skills that are attractive to employers: the ability to work independently, to evaluate evidence, and to present arguments clearly and persuasively.

In the past, our graduates have had no difficulty in securing rewarding jobs in a wide variety of sectors, ranging from journalism and broadcasting to teaching and research, finance, consultancy, law and public administration.

History at Cambridge is unique and challenging. You cover such a wide geographical and historical scope and receive the very best teaching from experts in their field.

Andrew

Course outline
Teaching is provided through a combination of Faculty lectures and seminar classes and College supervisions. On average, you attend eight to 10 lectures/classes each week.

Your weekly supervisions, for which you typically write an essay, give you the opportunity to debate and develop your ideas with a senior historian and expert supervisor.

Part I lasts two years (Part I) and comprises 18 papers, the first five of which are broad survey papers designed to give you an overview of a period in history. You study one each term for the first five terms and sit a written examination in each at the end of Year 2.

- You take at least one paper in British political history and at least one paper in British economic and social history.
- For the other three papers it’s possible to study any period of British or European history from the Greeks to the present global and imperial history; the history of North America and the United States; and, for the history of political thought. If you wish, you can begin to specialise, for example in ancient and medieval papers, or almost entirely in the twentieth century.

For the compulsory sixth paper – Themes and Sources, an introduction to the handling of primary sources – you submit a 1,500-5,000 word essay. There’s a wide choice of topics, typically investigating a major comparative theme in history (such as the environment, money and society, or the history of the body). The essay is written over a period of some months and involves individual research.

Year 3 (Part II)
You take five papers, three of which are compulsory:

- Historical Argument and Practice – a general methodological paper that reflects on the broad issues of historical argument and practice arising out of work throughout the degree course (themes range from empire to gender, and from revolutions to race)
- A Special Subject – consisting of two papers (one assessed by a long essay of 6,000-7,000 words; the other by a written examination) that provide an opportunity for advanced in-depth study of an important historical period, process or problem (eg the Angevin Empire, Indian democracy, the Black Death, the history of Ireland) through detailed examination of primary sources.

For your remaining papers, you can either choose two Specified Subjects from a selection of topics or themes in history, or choose one Specified Subject paper and write a dissertation of 10,000-12,000 words on a topic you have devised.

Specified Subject papers cover many different time periods and parts of the world, from the Roman world to the twentieth century, and from the history of the Pacific and Indian Oceans to America’s involvement in Vietnam.

Though the dissertation isn’t compulsory more than half of our students take the opportunity to write one, and many find it one of the most rewarding aspects of their time here at Cambridge. Recent examples of dissertation titles include Crime and the Entertainement Industry in Chicago 1901-33, The Decline of Vauxhall Gardens 1780-1899, and Robert Clive and the “GIR” in Eighteenth-Century India.

Our History course offers a huge range of options that span three millennia and circle the globe. In fact, you have the opportunity to investigate practically any period or aspect of history that interests you.
History and Modern Languages

This superb joint Honours degree gives you the language skills and historical awareness to better understand foreign cultures and societies – in Europe and beyond.

Course outline
Languages options are German, Italian, Russian and Spanish from scratch or post-A Level; Portuguese from scratch, and French post-A Level. You should indicate in your SAQ (see p7) which language you’re interested in studying.

Teaching is provided through lectures, intensive language classes, seminars and College supervisions. You can typically expect around 14 hours of teaching each week, alongside which you complete translation and essay assignments, and supervision essays which you discuss with a subject specialist.

There are written exams at the end of every year, plus an oral examination in your chosen language. In the final year, you can offer a dissertation of 10,000 words in place of a written exam.

Year 1 (Part IA)
You receive intensive language training (including translation and conversation) and take an introductory paper on the literature, history, film and philosophy of the country where your language is spoken. You also choose two broad papers in European or world history or the history of political thought.

Year 2 (Part IB)
You continue with classes to improve your language skills, and also choose three advanced papers – at least one from each subject – from a range in your chosen language (eg literature, history, film, art, thought) and history (European, global or intellectual).

Years 3 and 4 (Part II)
Year 3
You spend the third year abroad – studying, teaching or on a work placement, while gaining near-native proficiency in your language. You also complete a project, normally on a topic related to the history or culture of the country you’re staying in.

Year 4
In the fourth year, you continue with advanced language work, and take three specialised papers from a range of topics related to your language (eg literature, history, film, thought) and history (covering a variety of periods and parts of the world). You must take at least one from each subject.

Fact file
Duration
Four years – BA (Hons)
(Year 3 spent abroad)

2017 entry
Applications per place: 4
Number accepted: 20

Typical offers require
A Level
A*AA
IB 40-42 points, with 776 at Higher Level

Other qualifications
See p31-2

All Colleges require
A Level/IB Higher Level in the language (for languages to be studied post-A Level)

Some Colleges require
A Level/IB Higher Level History

Admission assessment
Pre-interview and interview (if interviewed) written assessments (see p41 and www.cam.ac.uk/admission/assessment)

Colleges
Available at all Colleges

Location
Map reference S (see p158-9)

Open days 2018
16 March – MML (see p98)
Cambridge Open Days – 5 July, 6 July (see p154)

History and Politics

This exciting joint Honours degree allows you to study a range of subjects from our highly regarded History and Politics and International Relations courses, together with creative new papers which explore overlaps between the two disciplines.

Course outline
You take four papers in each year. Teaching is provided through faculty lectures and classes and College supervisions, for which you typically write an essay and which give you the opportunity to discuss your ideas with a senior academic. In the first year, you can expect between eight and 10 hours of lectures and classes a week, along with one or two supervisions.

You’re assessed at the end of every year – mostly by three-hour written exams, though some papers are assessed by coursework and in the final year you can replace one paper with a dissertation.

Year 1 (Part IA)
In Year 1, all students take Evidence and Argument, The Modern State and its Alternatives, and International Conflict, Order and Justice. You also choose a history paper; the current options are:

- British Political History 1688-1886
- British Political History Since 1880
- Economic History
- European History 1715-1890
- European History Since 1890

History and ML is an outward looking course that teaches about the different ways people live and have lived in the world.

Helen

Year 2 (Part IB)
In Year 2, students choose one paper in each of the following categories:

- a paper in the history of political thought
- a paper in international organisation or comparative politics
- a further history paper from a range of options including periods of world history, American History, and British social and economic history

For the fourth paper, you can either study Statistics and Methods or write two 5,000 word essays on questions drawn from a wide range of topics in history and politics.

Year 3 (Part II)
All students take an interdisciplinary paper that considers general and thematic issues in history and politics and the relationship between them.

You then choose three papers from a range on the Politics and International Relations and History courses. The papers available each year may vary – see the website for those currently offered. Alternatively, you can replace one of these three papers with a dissertation of 10,000-15,000 words on a topic of your choice within the scope of the course.

Fact file
Duration
Three years – BA (Hons)

2017 entry
Applications per place: 3
Number accepted: 40

Typical offers require
A Level
A*AA
IB 40-42 points, with 776 at Higher Level

Other qualifications
See p31-2

No specific subjects required by all Colleges

Some Colleges require
A Level/IB Higher Level History

Admission assessment
Pre-interview written assessment (see p41 and www.cam.ac.uk/admission/assessment)

Colleges
Available at all Colleges

Location
Map reference S (see p158-9)

Open days 2018
College open days (arts) Cambridge Open Days – 5 July, 6 July (see p154)

I’ve really enjoyed exploring how History and Politics relate to one another. It’s great to have the opportunity to study such a broad and exciting range of topics.

Emma
History of Art

Fine collections of works of art, well-stocked libraries and the spectacular architectural environment on your doorstep mean that studying History of Art at Cambridge is particularly rewarding.

History of Art at Cambridge
Our course covers a wide spectrum of art and architecture, from the medieval to modern and contemporary periods. The aim is to foster a wide and deep understanding of art and architecture, and to help you develop visual literacy and awareness, as well as a range of critical and analytical skills.

A treasury of resources
There’s no substitute for looking at the real objects and we take full advantage of Cambridge’s outstanding resources, including the Fitzwilliam Museum and its picture conservation department, Kettle’s Yard and the Colleges’ art collections.

The Department’s comprehensive library houses a rich collection of books, and you have access to the University Library and the Fitzwilliam Museum’s reference library (among others) as well. During vacations, travel is encouraged and College financial support is usually available; we also organise study outings to major art collections and architectural sites in the UK and abroad.

Preparation
We advise that you visit museums, exhibitions and buildings, such as churches or country houses, and take descriptive notes or sketches of what you see. Try to analyse the effect works of art or architecture have on you.

Some familiarity with history, classical mythology and the Bible is invaluable for the study of the meaning of works of art in the western tradition. The admissions area of the Department website suggests other preparatory reading.

After Cambridge
Our graduates are well-equipped for employment in museums and art galleries, agencies for the care and conservation of monuments and heritage management, fine art dealing, publishing, advertising and the visual media, as well as for teaching.

Our prominent graduates include the artists Antony Gormley and Marc Quinn, the model and actress Lily Cole; Dr Philip Rylands, Director of the Peggy Guggenheim Museum in Venice; Dr Charles Saumarez Smith CBE, Chief Executive of the Royal Academy in London; Sir Nicholas Serota, former Director of the Tate Gallery and now Chairman of the Arts Council; Sir Gormanston, former Chairman of Sotheby’s UK.

The Department offers engaging lectures and ‘hands on’ experience with some of our country’s most beautiful paintings, sculptures and buildings. It’ll be a shame to graduate!

Course outline
Teaching is provided through lectures, seminars and supervisions. First-year students typically have up to six hours of departmental teaching each week, as well as a supervision linked to your weekly reading and essays.

Particular attention is paid to the first-hand study of works of art and architecture – lectures and classes are regularly held in museums; taught by curatorial staff and other visiting experts – and you receive exceptional attention and support throughout your degree.

Assessment varies according to the paper being studied but typically includes written examinations and visual analysis tests (comparing and contrasting works of art), and a dissertation in both Year 1 and Year 3.

Year 1 (Part I)
Part I provides you with a broad introduction to the history of art, and to the making and meaning of art objects, with special emphasis on the architecture of Cambridge and the collections of the Fitzwilliam Museum. These run from the art of Ancient Egypt to modern times, and include major examples of medieval, Renaissance and post-Renaissance art as well as non-Western items.

During the year you take five compulsory papers and complete a short dissertation:
- The Objects of Art History – a survey of art and architecture that introduces the history of art from antiquity to the modern era.
- The Making of Art – two papers covering issues of manufacture, technique and style in painting and sculpture in the context of their historical development.
- The Meaning of Architecture and Art – two papers concerned with how works of architecture and art are interpreted in light of cultural traditions.
- The short dissertation is 5,000 words on a work of art or architecture in or around Cambridge.

Year 2 (Part II A)
Part II deepens your knowledge and understanding by focusing in greater depth on specific issues.

In Part IA, you take one compulsory paper along with two pairs of papers on Special Subjects:
- Approaches to the History of Art and Architecture – the compulsory paper covers the history of the discipline and its critical methodologies from antiquity to the present day.
- Special Subjects – chosen from a range of up to 10, each pair of papers deals with a particular person, subject or period. These currently include French medieval art and architecture, Renaissance and baroque art, and art in medieval Italy, British art and architecture, Russian painting, art in Paris 1750-1800, visual art between 1945-89, contemporary art, and Islamic art.

Year 3 (Part II B)
In Part II B, you take one compulsory paper, two further pairs of Special Subjects papers and submit a dissertation:
- The Display of Art – the compulsory paper explores the ways in which art is collected, displayed and experienced in society.
- Special Subjects – the options available are as those in Part IA, but you take two subjects that you haven’t studied before.
- The dissertation is 7,000-9,000 words on a topic of your choice, as agreed with your Director of Studies.

Fact file
Duration
Three years – BA (Hons)

2017 entry
Applications per place: 3
Number accepted: 23

Typical offers require
A Level A*AA IB 39-42 points, with 776 at Higher Level

Other qualifications See p151-2
No specific subjects required by any Colleges

Admission assessment
An interview written assessment, if interviewed (see p43) and www.cam.ac.uk/assessment

Colleges
Available at all Colleges except Girton, Robinson and St Catharine’s

Location
Map reference L (see p188-9)

Open days 2018
College Open days (arts) Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
Architecture 48
Asian and Middle Eastern Studies 51
Classics 56
History 72
Philosophy 106
Theology, Religion, and Philosophy of Religion 118

Applying to Cambridge
Student Life
Applying to Cambridge
Student Life
Human, Social, and Political Sciences

Human, Social, and Political Sciences includes politics and international relations, social anthropology and sociology. You can specialise in one or two of these, but the flexibility of the course also enables exploration of a variety of subjects in the first year.

Explore subjects you like and experience new ones
Human, Social, and Political Sciences (HSPS) at Cambridge can be tailored from the start. This means it’s suited both to those with specific subject interests, and to those looking for a multidisciplinary degree.

The course comprises three core disciplines, taught by globally respected departments.

- Politics and International Relations explores politics within and between countries, covering issues from human rights and democracy, to financial crises and international conflict.
- Social anthropology and sociology. You can specialise in one or two of these, but the flexibility of the course also enables exploration of a variety of subjects in the first year.
- Sociology focuses on the nature of modern societies and the processes that shape social life, by examining social institutions and topics such as power and inequality.

During the first year, the different subjects vary broadly and you have time to decide which to specialise in for the second year.

Jonathan

Computing facilities, multimedia-equipped teaching rooms, purpose-built laboratories and a rare collection of ethnographic films.

And after Cambridge?
The analytical and critical skills, intellectual versatility, multicultural sensitivity and international outlook you develop through this course are widely sought after by employers. Recent graduates have pursued careers in academic and policy research, the Civil Service (including the Foreign Office), journalism, management consultancy, museums, national and international NGOs and development agencies, law, teaching, publishing, health management, and public relations.

Course outline
Teaching is delivered through lectures, supervisions and seminars. Some subjects also include practical/laboratory classes. In the first year, you have around eight lectures and one or two supervisions a week.

You’re assessed at the end of each year – mostly through three-hour written exams, though some papers are assessed by coursework. In Year 3, you can substitute one paper for a 10,000 word dissertation.

Year 1 (Part I)
In Year 1, you take four papers. At least three must be from the core subjects – politics, international relations, social anthropology and sociology. Your fourth can be another core subject paper, or you can choose an archaeology, biological anthropology or psychology option.

Years 2 and 3 (Part II)
You choose one of three single-subject tracks (see below), or one of four two-subject tracks – Politics and Sociology, Social Anthropology and Politics, Sociology and Criminology, or Sociology and Political Economy and Social Transformation – and either two optional papers, or one optional paper and a dissertation.

Politics and International Relations
Year 2
You take Comparative Politics, International Organisation, and History of Political Thought. Your fourth can be another politics and international relations paper; two 5000 word essays; a statistics paper; or one offered in another HSPS subject or from Archaeology, History or History and Philosophy of Science.

Year 3
You study a general paper in politics and international relations, plus three optional papers from a range of politics and international relations subjects, one of which can be a dissertation; or two optional papers, and one from another HSPS subject or from selected Archaeology, Economics and History papers.

Social Anthropology
Year 2
You take Comparative Social Analysis, Anthropological Theory and Methods and a paper on the anthropology of an ethnographic area. Your fourth is an optional paper.

Year 3
You take two advanced anthropology papers – Thought, Belief and Ethics, and Political Economy and Social Transformation – and either two optional papers, or one optional paper and a dissertation. Optional paper topics in Years 2 and 3 usually include the anthropology of city life, gender, law, development, medicine and health, and film and the arts, plus choices from the other HSPS subjects, and from Archaeology (archaeology and biological anthropology).

Sociology
Year 2
You take Sociological Theory, Modern Societies II, and Concepts and Arguments in Sociology or a statistics and research methods paper.

Year 3
You take two advanced sociology papers – Power, Media and Culture, and Gender and Social Transformation – one can be replaced by a dissertation. Your final year paper can be another sociology paper, or from another HSPS subject, Archaeology, History or History and Philosophy of Science.
Land Economy

Land Economy is intellectually challenging – encompassing law and economics, with aspects of the environment, business finance and resource management – and offers many excellent career opportunities.

A challenging combination
Law, economics, and their relationship to the built and natural environments are central to Land Economy, along with other areas such as public policy, planning, the financial aspects of real estate and international development.

The multidisciplinary nature of the course is particularly relevant in the twenty-first century where the environment, law and economics and the control of scarce resources affect the daily lives of people around the world.

Teaching and resources
Our lecturers are specialists in their own field and include lawyers, economists, planners and experts in environmental policy, finance and quantitative methods. Many are involved in research projects of national and international concern.

The Department has a comprehensive library and an extensive range of computing facilities, including an intranet store of wide-ranging teaching, careers and other useful information.

Professional training
This degree differs from similar courses (such as Town Planning) offered elsewhere because it’s not wholly vocational, and the emphasis is on intellectual and academic content which appeals greatly to employers.

There are lots of options available. I can tailor it to my own strengths and interests and it opens up all kinds of fantastic job prospects.

Elaine

Course outline
Teaching in the Department is a mix of lectures, seminars, project work and supervisions. In a typical week, you can expect 10-15 hours of lectures and two or three supervisions.

Assessment is by written examinations and through coursework and projects, as well as a dissertation in Year 3 (Part II).

Year 1 (Part IA)
Part IA provides the framework for later specialisation. You acquire a thorough grounding in the core disciplines of law and economics and are introduced to the multidisciplinary nature of the degree through four compulsory papers:

- Economics
- The Public Sector Institutional and Legal Frameworks
- Quantitative and Legal Methods for Land Economists
- Land Economy, Development and Sustainability

During your first year you develop a sound numerical base, computer literacy, and skills in oral presentation and report preparation.

Year 2 (Part IB)
In Part IB, you can continue studying a broad range of law, environmental policy and economics topics, or choose to specialise more closely in one of the three disciplines. You take five papers, including at least one paper from a choice of two on law, and select your other four papers from a choice of six. Current options include:

- Environmental Economics and Law
- Fundamentals of Finance and Investment
- The Built Environment
- Land and Urban Economics
- The Law of Real Property: Principles, Policy, and Economic Implications

Year 3 (Part II)
Part II continues the work of the second year, with further opportunity for breadth or depth. You’re required to take four papers chosen from a wide range of options which currently includes:

- Law and Economics
- Landlord and Tenant Law
- Planning Policy and Practice
- Land, Food and Ecosystem Services
- Land Policy and Development Economics
- Advanced Techniques in Finance and Investment for Real Estate

You also write a 10,000 word dissertation on any aspect of the Department’s work of your choosing. Dissertation topics have covered all the research interests of Departmental staff and this is the opportunity to specialise in a topic that particularly interests you.

There is a wide choice and in the past students have written on, for example:

- the economics of gentrification
- Aboriginal land claims in Australia
- catastrophic risk management in capital markets
- the social perception of population density
- the future prospects of virtual currencies
- the upgrading of slums in Brazil
- road traffic and house prices
- financial institutions in sub-Saharan Africa
- the affordable housing legacy of the London Olympics

Related courses
- Architecture
- Economics
- Geography
- Human, Social, and Political Sciences
- Law
- Management Studies

Admission assessment
Pre-interview written assessment

Typical offers require
A Level
AA 40–42 points, with 776 at Higher Level

Other qualifications
No specific subjects required by any College

Useful preparation
Economics, Mathematics

Duration
Three years – BA (Hons)

2017 entry
Applications per place: 5
Number accepted: 56

Location
Map reference F (see p158-9)

Open days 2018
6 July – booking required, see the Department website
College open days (arts) Cambridge Open Days – 5 July, 6 July (see p154)

Fact file

Applying to Cambridge
Student Life
www.cam.ac.uk/
Law

Questions of analysis and interpretation, logical reasoning, ethical judgement, political liberty and social control: Law at Cambridge allows undergraduates to see law in its historical and social contexts, and to examine its general principles and techniques.

Law at Cambridge

Although our course (referred to elsewhere as LLB) is primarily concerned with English law, there are opportunities to study other legal systems, including civil (Roman) law, EU law and international law. You can also study theoretical and sociological aspects of law such as jurisprudence or parts of criminology.

Facilities and resources

The present Faculty teaching staff has expertise across nearly every aspect of English law and its history, as well as EU, international and civil law, legal philosophy and criminology.

The Faculty building houses lecture theatres, seminar rooms and a moot court, as well as the comprehensive Squire Law Library, offering more than 180,000 volumes and excellent computing facilities.

The Faculty and University Law Society organise numerous activities including formal meetings, informal barristers’ and solicitors’ evenings, social events, lectures and moots (debates about hypothetical legal cases).

Erasmus Scheme

The Faculty currently has exchange agreements with universities in France, the Netherlands, Germany and Spain. About 20 undergraduates can spend a year abroad studying the law of one of these European countries. See the Faculty website for details and updates on the Scheme.

After Cambridge

Currently, a Law degree alone isn’t a qualification for practice but ‘qualifying law graduates’ (who’ve passed the seven ‘foundation’ subjects) may proceed directly to vocational courses that lead to professional examinations. The foundation subjects are Constitutional Law, Criminal Law, Law of Tort, Law of Contract, Land Law, Law of Trusts (Equity), and Law of the EU. Please note that professional bodies are reviewing the requirements for qualifying as a solicitor or barrister.

Our graduates go on to qualify as barristers and solicitors, and find employment within the legal departments of the Civil Service, local government, industrial and commercial firms, banks, and international organisations. Others stay in academia or seek careers in administration, management, politics or finance.

The Cambridge Law degree is academically stimulating, challenging and rewarding and provides the foundations for a successful future career.

James

Course outline

For each subject, you attend lectures given by teaching members of the Faculty. The typical number of lecture hours for each paper is 36 per year, mostly timetabled for the first two terms of each year, which equates to about 10-12 hours of lectures a week. You normally have a formatively College supervision in each subject as well.

With the exception of the Legal Skills and Methodology paper, for which you submit an extended essay, each paper is assessed by a written examination at the end of the year. In the third year, you have the option of substituting one paper for a dissertation.

Year 1 (Part IA)

In year 1, all students take the same papers:
- Criminal Law
- Constitutional Law
- Civil Law
- Law of Tort
- Legal Skills and Methodology – a half paper providing training in legal methodology and research

Year 2 (Part IB)

In your second year, you choose five papers from a wide range of options. Most students take Contract Law and Land Law.

Other options are:
- Family Law
- International Law
- Administrative Law
- Criminal Procedure and Criminal Evidence
- Legal History
- Civil Law II
- Criminal Law, Sentencing and the Penal System
- Comparative Law
- Human Rights Law
- Corporate Law

Year 3 (Part II)

In the third year, you select and study five papers from an even more extensive range.

Most students take Equity and European Union Law but you can develop your interests in, for instance:
- commercial law
- public law subjects
- more theoretical aspects of law, such as jurisprudence

You can choose from a wide range of options, including:
- Landlord and Tenant Law
- Law of Succession
- Personal Information Law
- Law and Development
- Banking Law
- Corporate Law

You can also participate in a seminar course, submitting a dissertation in place of one paper. Seminar courses vary each year but in the past have included Family in Society, Women and the Law, Law and Ethics of Medicine, Public Law, and Select Issues in International Law.

Fact file

Duration

Three years – BA (Hons)

2017 entry

Applications per place: 5
Number accepted: 219

Typical offers require

A Level: AAA
IB: 40-42 points, with 7/6/6 at Higher Level

Other qualifications

See p51-2

No specific subjects required by any Colleges

Useful preparation

A Level/B Higher Level in an essay-based subject

Admission assessment

An interview, written assessment, if interviewed (see p43 and www.cam.ac.uk/assessment)

Colleges

Available at all Colleges

Location

Map reference S (see p158-9)

Open days 2018

4 July – booking required, see the Faculty website
College open days (art)
Cambridge Open Days – 5 July, 6 July (see p54)

See the Faculty website for information regarding the three-day Year 12 Sixth-Form Law Conference held each March

Related courses

Human, Social, and Political Sciences 78
Economics 80
Management Studies 116
Philosophy 106
Linguistics

Are you curious about our most crucially human attribute, language? Is a subject that combines the arts and sciences appealing? If you’ve found yourself asking ‘why?’ or ‘how?’ in relation to language, then Linguistics is for you.

Language and linguistics

Linguistics is the systematic study of human language. Superficially, there’s huge variation among the world’s languages, and linguists not only describe the diverse characteristics of individual languages but also explore properties which all languages share and which offer insight into the human mind.

The study of linguistics draws on methods and knowledge from a wide range of disciplines. For instance, the study of meaning draws on philosophy, the analysis of the speech signal uses methods from physics and engineering, and the study of language acquisition draws on psychology.

This variety is one of the things that makes linguistics fascinating: one day you might be poring over a medieval text for evidence of how the grammar of a language has changed, and the next, learning about how the larynx creates sound energy for speech or how we can record brain responses in a categorisation task.

Linguistics at Cambridge

At Cambridge, we have internationally acknowledged expertise across an unusually wide range of language-related disciplines, both theoretical and applied. Situated within the Faculty of Modern and Medieval Languages, Linguistics benefits greatly from colleagues specialising in the linguistics of particular European languages.

After Linguistics

The broad interdisciplinary training we offer provides our graduates with transferable skills that are greatly sought after by employers; for example, students learn to analyse quantitative data, construct abstract grammatical models, and test alternative hypotheses. Linguistics graduates find employment in a wide range of professions, from journalism to banking.

Linguistics provides particularly good preparation for vocational training too, in fields such as speech therapy, teaching, speech and language technology (eg developing speech recognition and translation software), law, translation, interpreting and even forensic linguistics.

Familiarity with a range of human languages is also a huge advantage in careers where rapid learning of unfamiliar languages may be involved, such as in the Diplomatic Service.

Studying Linguistics I can explore the full scope of a discipline which is still developing in many exciting directions, and focus on areas which I really enjoy.

Amelia

Course outline

Linguistics is divided into a one-year Part I and a two-year Part II, and teaching is delivered through a mixture of lectures, supervisions and practical sessions. A typical week involves four hours of lectures, two hours of supervisions (in groups of six students in Part I, and two students in Part II), and one to two hours of practical classes.

Assessment is by written examination, and practical exams in phonetics, as well as a dissertation in the final year.

Year 1 (Part I)

Part I provides a foundation across a wide range of linguistics taught within the Faculty.

You take the following four papers:

- Sounds and Words – an introduction to phonetics, phonology and morphology
- Structures and Meanings – looking at topics including sentence construction, semantics and pragmatics
- Language, Brain and Society – considering language and its relation to cognitive and social phenomena
- History and varieties of English – a linguistic analysis of contemporary variation and historical change in English

Year 2 (Part IIA)

Part II allows you to specialise in the areas which particularly interest you. There is a wide choice of topics to choose from, taught by the Department as well as other faculties and departments.

In Part IIA, you take four papers chosen from a wide range of options dealing with different linguistic levels and perspectives, which may include the following (not all options are offered every year):

- Phonetics
- Morphology
- Syntax
- Semantics and Pragmatics
- Historical Linguistics
- Phonology
- Morphology
- Syntax
- Semantics and Pragmatics
- Historical Linguistics

Year 3 (Part IIIB)

In Part IIIB, you take:

- Linguistic Theory – a general theory paper
- two further papers from the remaining Part IIA options

For your fourth paper, Part IIIB also includes an element of individual research as you write a dissertation of 8,000–10,000 words on a topic of your choice.

Related courses

Anglo-Saxon, Norse, and Celtic 44
Asian and Middle Eastern Studies 51
Classics 56
Computer Science 58
Human, Social, and Political Sciences 78
Psychological and Behavioural Sciences 108

Duration

Three years – BA (Hons)

2017 entry

Applications per place: 3
Number accepted: 33

Typical offers require

A Level

A*AA

IB 40–42 points, with 7/7/6 at Higher Level

Other qualifications

See p151-2
No specific subjects required by any Colleges

Useful preparation

English (Language or Literature), Mathematics, an arts/science mix, a language (ancient or modern)

Admission assessment

At interview: written assessment, if interviewed (see p43 and www.cam.ac.uk/assessment)

Colleges

Available at all Colleges except St Catharine’s

Location

Map reference: 5 (see p158-9)

Open days 2018

TBC – booking required, see the Faculty website

College open days (arts)

Cambridge Open Days – 5 July, 6 July (see p154)
Mathematics
Including Mathematics with Physics

Cambridge is renowned for the excellence of its Mathematics course. Equally challenging and rewarding, it offers the opportunity to study a wide range of subjects: everything from abstract logic to black holes.

Flexibility: a course that suits you
Two aspects of the course that our students greatly appreciate are its flexibility and the breadth of subjects offered. The amount of choice increases each year and after Year 1 you can choose the number of options you study. Some students take as many options as they can; others take fewer and study them very thoroughly.

This structure allows you to keep your options open, giving you the opportunity to discover your strengths, extend your knowledge and develop your interests before specialising.

Our Faculty
Since Sir Isaac Newton was Lucasian Professor (1669-96), mathematics teaching and research here have been enhanced by a string of brilliant mathematicians, including six Fields Medalists and several Nobel Prize winners. Most current Faculty members are leading international authorities on their subject. Including six Fields Medallists and several Nobel Prize winners. Most current Faculty members are leading international authorities.

Careers
A Cambridge Mathematics degree is versatile and very marketable. The demand for our mathematicians is high in business, commerce and industry, as well as the academic world.

Recent graduates include a meteorologist, architect, sports statistician, journalist, cybersecurity analyst, and an avionics, radar and communications engineer, as well as teachers, actuaries, accountants, IT specialists, financiers and consultants.

Around 45 per cent of our students go on to further study, while others follow a wide variety of careers. Recent graduates include a meteorologist, architect, sports statistician, journalist, cybersecurity analyst, and an avionics, radar and communications engineer, as well as teachers, actuaries, accountants, IT specialists, financiers and consultants.

Course outline
In Year 1, you typically have 12 lectures and two supervisions each week. In the following years, the greater choice and flexibility means that the pattern of lectures and supervisions is more irregular, but the average load is roughly the same.

You sit four written examination papers each year in the first three years. In addition, there are optional computer projects in Years 2 and 3. In the fourth year, each course is examined individually, and you have the option of submitting an essay on a current research topic.

Year 1 (Part IA)
In the first year, there are two options to choose from:
- Pure and Applied Mathematics, for students definitely intending to continue with Mathematics
- Mathematics with Physics, for students who may want to study Physics after the first year

You should state in your UCAS (see p7) which option you wish to take, though it’s possible to change when you start the course. You can still continue with Mathematics in the second year if you take Mathematics with Physics.

Part IA introduces you to the fundamentals of higher mathematics, including:
- the study of algebraic systems (such as groups)
- analysis of calculus
- probability
- Newtonian dynamics and special relativity
- the study of algebras (such as groups)
- mathematical methods (such as vector calculus)

You take eight subjects. Those taking Mathematics with Physics replace two Mathematics subjects with Part IA Physics from Natural Sciences, covering, for example, kinetic theory, electromagnetism, and practical work in a laboratory.

Year 2 (Part IB)
In Part IB, you choose from around 16 options available. In most, the topics of the first year are studied in much greater depth, but some new topics are offered for example:
- geometry
- electromagnetism, quantum mechanics and fluid dynamics
- numerical analysis

There are also optional computer projects in Years 2 and 3. In the following years, the greater choice and flexibility means that the pattern of lectures and supervisions is more irregular, but the average load is roughly the same. There are also optional computational projects (assessed by means of reports and programs submitted before the summer examinations), using numerical or algebraic techniques to investigate mathematical problems.

Year 3 (Part II)
Year 3 gives you the opportunity to explore your mathematical interests in detail. There is a very wide choice, for example:
- cryptography
- algebraic topology
- number theory
- cosmology
- general relativity

There are also optional computational projects.

Year 4 (Part III, optional integrated Masters)
Part III has a world-wide reputation for training the very best research mathematicians. Progression to Part III, in which more than 80 options are offered, normally requires a first in Part II or a very good performance in Parts II and III, and successful completion leads to a BA with MMath. See the Faculty website for more details.

My Mathematics degree at Cambridge was inspiring and demanding, but most importantly academically rewarding, and it opened up opportunities I never knew existed.

Zoe

STEP
For information about STEP, see p152. The University offers a free online STEP support programme (www.maths.org/STEP) designed to help prospective applicants develop advanced problem-solving skills and prepare for the STEP exams.

Fact file
Duration
Three years – BA (Hons)
Four years – MMath

2017 entry
Applications per place: 6
Number accepted: 357

Typical offers require
A Level 4 A’s, including Mathematics, A Level Further Mathematics, STEP (see p152)

Admission assessment
Some Colleges require applicants to take a written assessment at interview, if interviewed at interview.

Colleges
Available at all Colleges except Wolfson
Most Colleges don’t encourage deferred entry

Location
Map reference X (see p158-9)

Open days 2018
28 April, 5 May – booking required, see the Faculty website
College open days (sciences)
Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
Computer Science 58
Economics 60
Engineering 65
Natural Sciences 76
At Cambridge, we offer two medicine courses – the Standard Course and the Graduate Course. With both, our aim is to educate students to become compassionate, thoughtful, skilled members – and leaders – of the medical profession.

Hard work, very rewarding
Success in medicine requires application and hard work, both while studying and when in practice. However, it brings great rewards in terms of job satisfaction, involving, as it does, a combination of science with human interactions and numerous career opportunities.

Our medicine courses are intellectually stimulating and professionally challenging. We provide rigorous training in the medical sciences, while equipping students with the communication, interpersonal, and clinical skills required by today’s doctors.

The MB/PhD Programme
Designed for Standard Course medical students who are interested in a career in academic medicine, the MB/PhD Programme intercalates three years of research between Years 4 and 5. See online for more details.

UK Foundation Programme
Graduates are entitled to hold provisional registration with the General Medical Council (GMC) with a licence to practise, subject to demonstrating to the GMC that they are fit to practise (please note this may be subject to change). To apply for full registration as a doctor, you must satisfactorily complete the first year of a Foundation Programme post and continue to meet fitness to practise requirements.

Please refer to the Foundation Programme website (www.foundationprogramme.nhs.uk/pages/home) for information.

Courses

Medicine

At Cambridge, we offer two medicine courses – the Standard Course and the Graduate Course. With both, our aim is to educate students to become compassionate, thoughtful, skilled members – and leaders – of the medical profession.

Course outline – Standard Course
At Cambridge, you study the medical sciences first, before learning to apply that knowledge to medical practice as a clinical student.

The first three years (pre-clinical studies) involve lectures, practical classes (including dissections) and supervisions, with typically 20-25 timetabled teaching hours each week. The emphasis during clinical studies (Years 4, 5 and 6) is on learning in clinical settings: at the bedside, in outpatient clinics and in GP surgeries, which is supported by seminars, tutorials and discussion groups.

Assessment, both formative and summative, plays a significant role throughout. Your ongoing progress is reviewed weekly and termly by your College supervisors. Formal, summative assessment, which determines your ability to proceed with the course, includes written and practical examinations, coursework submission and clinical assessments.

Successful completion of the first three years leads to a BA degree and on, successful completion of the clinical studies in Cambridge you are awarded two degrees, the Bachelor of Medicine and the Bachelor of Surgery (MB, BCnH).

Years 1, 2 and 3 (pre-clinical studies)
Years 1 and 2
In Years 1 and 2, you study the medically-relevant core scientific knowledge and skills needed as a medical professional.

Taught by some of the world’s top academic scientists, we provide you with the scientific basis that will allow you to develop your medical career to the full, whether your aim is to deliver outstanding patient care or whether you wish to contribute to clinical academic medicine, combining research and teaching with clinical duties to push forward the boundaries of health care.

Read more about Years 1 and 2 online at: www.biology.cam.ac.uk/undergrad.

Year 3
You specialise in one of a wide range of other subjects offered by the University (sometimes known elsewhere as intercalates) to qualify for the BA degree. Options include:

- a single Part II Natural Sciences subject (see p104-5)
- Part II Biological and Biomedical Sciences (see p104)
- a subject less obviously related to medicine, such as Anthropology, Management Studies or Philosophy

Years 4, 5 and 6 (clinical studies)
Clinical studies are based at the Cambridge Biomedical Campus and Cambridge University Hospitals NHS Foundation Trust (Addenbrooke’s Hospital). As a student, you also spend time in other regional NHS hospitals throughout the East of England and in general practices in the Cambridge and the surrounding region.

Throughout clinical studies, you build on your biomedical science education; developing the knowledge, skills and attitudes required to practise clinical medicine. Following an introductory course, each of the three years has its own focus – core clinical practice (Year 4), specialist clinical practice (Year 5) and applied clinical practice (Year 6) – and is built around several major themes, including:

- communication skills, patient investigation and practical procedures
- therapeutics and patient management
- core science, pathology and clinical problems
- evaluation and research
- professionalism and patient safety

You have weekly small-group clinical supervisions with junior doctors to develop and monitor your clinical skills.

Read more about the clinical course online at: www.medschl.cam.ac.uk/education/prospective.

NHS Bursaries

NHS Bursaries (www.nhsbsa.nhs.uk/students) are currently available for eligible Medicine students from Year 5 of the Standard Course, or from Year 2 of the Graduate Course.

Mhairi

Medicine here is incredible. In the first year, we have full body dissection (offered in very few UK medical schools), which is an amazing way to learn anatomy.

Continued overleaf
Medicine (cont.)

Entry requirements for Medicine

You may enter up to four medical courses in your UCAS application. Your remaining choice can be used for an alternative course without prejudice to your commitment to medicine. "Science/mathematics subjects" refers to Biology, Chemistry, Physics and Mathematics. It does not include Psychology.

A Levels
- A Levels in Chemistry and at least one of Biology, Physics, Mathematics
- Most applicants have at least three science/mathematics A Levels and some Colleges require this and/or particular subjects. See College websites for details.

Please note that in the past three admissions rounds, 98 per cent of applicants for Medicine offered three or more science/mathematics A Levels and, of these, 31 per cent were successful in obtaining a place. Of the two per cent of applicants who offered only two science/mathematics A Levels, just eight per cent were successful in gaining a place.

International Baccalaureate
A Level subject requirements also apply to the IB – Higher Level subjects satisfy A Level subject requirements.

Other examination systems
See p151-2 and consult any College Admissions Tutor for further advice.

Admission assessment
All Standard Course applicants including applicants to mature Colleges are required to take the Biomedical Admission Test (BMAT) pre-interview (www.cam.ac.uk/assessment). You must be registered (by your assessment centre – often your school/college) for the BMAT by 1 October 2018, and take the test on 31 October 2018. Alternatively, you can take the BMAT in September 2018, for which you must register yourself in advance. See website for details and please note you must only take the BMAT once.

Work experience
To develop understanding of what a career in Medicine involves and your suitability for your intended profession, you are strongly advised (though not required) to undertake some relevant work experience, either paid or voluntary, in a health or related area.

Admission assessment

Selection
Applicants must be keen scientists with a sound scientific understanding. As selection for medical school implies selection for the medical profession, admissions decisions are informed by national guidance on what makes a good doctor.

In addition:
- trainee doctors must satisfy the GMC’s fitness to practise requirements, both when applying and throughout the course
- offer holders are required to undergo an enhanced Disclosure and Barring Service (DBS) check
- successful applicants are required to complete a confidential occupational health questionnaire and be immunised against certain infectious diseases

See full details at:
www.undergraduate.study.cam.ac.uk/courses/medicine.

If you are an applicant with a disability, Specific Learning Difficulty or long-term health condition, you should contact a College Admissions Tutor as early as possible to discuss your needs and the course requirements. Such disclosures will be considered independently of your academic qualifications and the interview process.

I chose Medicine because it’s very academically and scientifically driven at the outset and more clinical towards the end, which opens up options when I leave.

Simon
Modern and Medieval Languages

Cambridge offers exceptional opportunities to study the languages and cultures of most European (and many non-European) countries. Our students acquire advanced linguistic and critical skills, as well as intercultural sensitivity, which places them among the most sought-after graduates on the job market.

Modern and Medieval Languages
(MML) at Cambridge

The Cambridge course is uniquely flexible and interdisciplinary. You can pursue your interests in many areas – from Italian Renaissance art to contemporary Brazilian cinema, medieval German folk tales to socialist realism in Stalin’s Russia. MML also includes options in linguistics, such as the historical and cognitive dimensions of the languages you’re studying.

All our students study two languages (see p94), one of which can be learnt from scratch (the exceptions being French and Latin, for which A Level/IB Higher Level standard is required). No matter what your proficiency when you arrive, you leave with near native-speaker competence in at least one of your languages. Most of our language classes are run by native speakers.

Our Faculty is one of the largest in the country. It consists of six sections, whose members are internationally renowned experts in their fields. In the Guardian University Guide 2018, Cambridge came top for modern languages and linguistics.

Facilities and resources

Our students make good use of the Faculty library, the Media Centre (equipped for film studies) and extensive online Computer-Assisted Language Learning (CALL) resources, as well as bespoke language teaching and learning materials available at the Language Centre.

A year in...

MML students spend their third year abroad in one of three ways: they attend a foreign university, become an English-speaking assistant at a school, or do an internship with a firm. In the past, some have:

- worked at a lifestyle TV channel in Paris
- studied history at the Humboldt University in Berlin
- taught English as a British Council assistant in Buenos Aires
- conducted an orchestra in St Petersburg

You can tailor your year abroad to suit your own interests and later career goals, providing you spend at least eight months abroad and are constantly immersed in one of the foreign languages you are studying. If you wish, you can split the year between two countries, spending at least three months in each (www.mml.cam.ac.uk/ya).

The teaching staff are so welcoming and give up loads of time to ensure the most productive experience possible. The year abroad is the icing on the cake.

Rory
Modern and Medieval Languages (cont.)

CAREERS
Fluency in a foreign language, an understanding of foreign cultures, and analytical and research skills are all in great demand on the job market. Employers — even those who are not primarily interested in languages — value the experience, independence, and cross-cultural awareness our graduates have gained during their year abroad.

Most graduates use their languages in their work, and all build on the many skills developed during their degree.

Our graduates find an array of different jobs open to them. Recent destinations include the BBC World Service, international law firms, UNICEF and KPMG.

For a small number, the degree is more directly vocational: they become professional linguists (language teachers, translators or interpreters), usually after further specialised training. For further information on what our graduates go on to do, see: www.mml.cam.ac.uk/applying/careers.

You can study two of:

- French
- German
- Italian
- Russian
- Portuguese
- Spanish

Alternatively, you can combine any of these with either Classical Latin (if you’re taking it at A Level/IB Higher Level) or Classical Greek (which can be studied either post-A Level or from scratch). If you wish to combine one of these modern European languages with Arabic, Hebrew or Persian, you can do so within the Asian and Middle Eastern Studies degree course (see p51-53).

It is also possible to combine one of these modern European languages with History — see History and Modern Languages (p76).

Want to study more than two languages?

In the second and fourth years, it may be possible to take an introductory course in a language and culture you haven’t studied before. The languages offered are subject to availability but may include Catalan, Dutch, modern Greek, Polish, Portuguese and Ukrainian.

Another possibility (open to any member of the University) is to take a one-year course at the University’s Language Centre (see p15) to obtain a further language qualification. Courses are currently available in basic Arabic and Mandarin, and in basic, intermediate and advanced French, German, Italian, Russian and Spanish.

Course outline
Teaching is made up of lectures, seminars, language classes, intensive oral work in small groups, and supervisions: For your language classes, you receive individual feedback from your teachers, outlining how you can improve further. For your supervisions, you prepare written work which you then discuss with a specialist in the field. In your first year, you can generally expect around 12-14 hours of teaching each week.

You are assessed at the end of each year, primarily through written and oral examinations, and the submission of an extended research project (usually a dissertation) at the end of Year 3. You may also offer a second dissertation instead of one of the Part II written examination papers.

Year 1 (Part IA)
You study two languages, at least one at post-A Level/IB Higher Level standard. You should indicate which languages you’re interested in studying in your SAQ (see p7). The choice isn’t final, and many students change their mind before (or after) they start.

The main emphasis in Year 1 is on developing your language skills by studying a wide variety of authentic texts, radio programmes and video clips, as well as through a variety of teaching methods including Faculty classes of up to 15 students, and supervisions in groups of two or three.

You also take an introductory paper in which you explore three or more of the following topics:
- literature
- linguistics
- history
- thought
- art

Year 2 (Part IB)
In your second year, you take five papers in total. You continue intensive language study with the aim of acquiring native or near-native fluency in both languages, and choose from a wide range of papers covering topics such as:
- literature
- linguistics
- history
- thought
- art

You have the option to replace one exam with coursework in the second year.

Years 3 and 4 (Part II)
Year 3
In the third year, you spend at least eight months abroad, during which time you prepare a project that counts as one sixth of your final mark. This can be a dissertation, a translation project or a linguistics project.

Just before the fourth year starts, you take an oral examination back in Cambridge.

Year 4
You take six papers and are free to specialise in one language, to combine options from two or more languages, to take comparative options and/or to take up to two options from certain other courses (eg. English History). You do advanced language work and focus on topics such as literature, linguistics, thought, history, politics, film etc in one or two of your languages.

There are also a number of comparative papers on offer which allow you to combine the study of both of your languages. These include papers on European film, the body, and the linguistics of the Germanic, Romance and Slavonic language families. Many students replace one of their written papers with a further dissertation (currently 8,000-10,000 words).

Fact file

Duration
Four years — BA (Hons)
Year 3 spent abroad

2017 entry
Applications per place: 2
Number accepted: 180

Typical offers require
A Level/IB 3A/45 points, with 776 at Higher Level
Other qualifications See p51-2

All Colleges require
A Level/IB Higher Level in at least one of the languages you want to study

Admission assessment
A-level written assessment, if interviewed (see p43 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges

Location
Map reference S (see p158-9)

Open days 2018
16-March – booking required, see the Faculty website
Cambridge Open Days – 5 July, 6 July (see p54)

Related courses
Anglo-Saxon, Norse, and Celtic 44
Asian and Middle Eastern Studies 51
Classics 36
English 68
History 77
Linguistics 84

www.mml.cam.ac.uk
info@mml.cam.ac.uk
01223 335000
Our course covers a broad range of music, as well as a great variety of ways of thinking about and understanding music, ranging from medieval plainchant to the blues, and from advanced analysis to the study of music and science.

These facilities and resources are complemented by the University Library and by the libraries, practice rooms and computer suites available in Colleges. College funds are available for instrumental or vocal lessons for those taking a performance course.

CAREERS
Music graduates are extremely attractive to employers and can follow a career in almost any field thanks to the transferable skills they acquire on our course.

Many of our students do enter the music profession in one guise or another. Recent graduates include pianist Tom Poster, who performs regularly at the Proms, and the tenor Robin Ticciati, now the Principal Conductor of the Scottish Chamber Orchestra. Other recent graduates have pursued successful careers in publishing and the media, academia, arts administration, banking, law, public service and the charity sector.

As well as studying one of the best music courses in the country, I’ve had opportunities for conducting, singing and acting that I just wouldn’t have had elsewhere.

Emma

**Course outline**
Teaching is provided through lectures, seminars and supervisions. In your first year, you can typically expect to have six lectures, three supervisions, and aural and keyboard skills classes each week. In later years, lectures decrease to make way for more seminar, small-group and one-to-one teaching.

Assessment takes place at the end of each year through written examinations, the submission of portfolios, compositions, essays and dissertations, and through recitals.

**Year 1 (Part IA)**
The first year consists of three major components:

- Historical and critical studies – two and a half papers covering issues involved in understanding music and its relationship to society and culture. This includes the main historical developments of Western music from the medieval period to the present, and a selection of historical or contemporary case studies
- Aural and keyboard skills – two papers giving you a thorough technical grounding in music of the Western tonal tradition through the acquisition of basic harmonic skills at the keyboard, aural work and writing music in a range of historical styles. This is a foundation for more advanced work in all musical fields
- Tonal skills – two papers giving you a thorough technical grounding in music of the Western tonal tradition through the acquisition of basic harmonic skills at the keyboard, aural work and writing music in a range of historical styles. This is a foundation for more advanced work in all musical fields
- Music analysis – one paper that gives you an understanding of what makes music work through hands-on familiarity with a range of styles. This creates a bridge between your work in historical and critical studies and in tonal skills

For your final half paper, you have the choice of giving a 15 minute recital, submitting an original composition or writing an extended essay.

**Year 2 (Part IB)**
You take a further paper in each of the core Part IA areas (historical studies, analysis and applied tonal skills) which together take up half of your time.

For the remaining half, you choose three papers from a range of different topics. Subjects available change from year to year but normally include:

- In-depth historical topics
- Jazz and popular music
- Ethnomusicology
- Notation
- Keyboard skills
- Music and Science
- Performance studies (including recital)
- Composition
- A dissertation of 5,000-7,000 words

**Year 3 (Part II)**
In the final year, you have even more choice. There are no compulsory papers – you choose six papers from a wide selection of options which reflect your own interests and which may also develop the skills and knowledge needed for your chosen career path. Options available may vary each year but recent examples include:

- Advanced Performance
- A dissertation of 7,000-10,000 words
- Composition
- Beethoven’s Late String Quartets
- Musical Counter-Cultures of the 1960s
- Exploring Music Psychology
- Perceptual and Performance

You can also work with individual staff members on your own projects, whether as an advanced performer, composer, historian, analyst, ethnomusicologist or music scientist.

In this way, while our course gives you the solid understanding of the subject which a music degree should guarantee, it also offers you the flexibility you need to prepare for life after Cambridge.
Natural Sciences

Natural Sciences is the framework within which most science subjects are taught at Cambridge. The course offers the biological and physical sciences listed opposite, and the option to specialise or to study a range of subjects.

Most students pursue a single advanced subject in Year 3 (Part II), and undertake a research project or dissertation in that field. Alternatively, you can take the broader Biological and Biomedical Sciences option or the Physical Sciences option (see p104).

After Natural Sciences?
Almost half of our graduates continue with further study and research, either in Cambridge or at other universities, in the chemical industry, pharmaceuticals, infection and immunology, biotechnology, environmental management or nanotechnology. Natural Sciences prepares you well for the challenges of research, especially in emerging interdisciplinary areas.

Natural Sciences students develop a range of skills that are highly valued by employers and they go into a wide range of careers; for example recent graduates include a maths teacher, a product development scientist, an investment banking analyst and a management consultant.

I wasn’t sure which area of science to specialise in and the first year allowed me to get a better insight into my strengths and weaknesses before deciding.

Tom

Fact file

Duration
Three years – BA (Hons)
Four years (some subjects) – MSci

2017 entry
Applications per place: 4
Number accepted: 629

Typical offers require
A Level: 4-4 points, with 776 at Higher Level
Other qualifications: See p151-2
See box on p100 for subject requirements

Admission assessment
Pre-interview written assessment
(see p43 and www.cam.ac.uk)

Colleges
Available at all Colleges

Location
Map references C, D, J, M, W
Available at all Colleges

Related courses
Chemical Engineering 54
Computer Science 16
Engineering 46
Geography 70
Mathematics 86
Psychological and Behavioural Sciences 108

Courses

Natural Sciences

Natural Sciences at Cambridge
Natural Sciences (NST) offers a wide range of physical and biological science subjects from 16 departments in a unique and demanding course. A broad first year is combined with increasing specialisation in the second year, and the possibility of total specialisation from the third year.

The breadth of the course reflects the blurring of boundaries between the different sciences and before committing yourself to one department you study a variety of subjects, some of which may be new to you. This means you can change your mind about which subject to specialise in.

Visit the Departments’ websites for in-depth subject information and details about current research. All of these sites, as well as suggested reading for prospective students, can be accessed from the Natural Sciences website at: www.natsci.tripos.cam.ac.uk.

Flexibility and choice
The flexibility of the course makes it possible to take purely biological sciences, purely physical sciences or a combination of both, according to your interests.

Many students discover a passion for the new subjects that they start in the first year, such as Earth Sciences or Materials Science, and continue with these in subsequent years.

Course overview
Natural Sciences allows you to experience new areas of science, discover the interconnections between apparently diverse subjects, and gain an insight into different scientific methods.

See the course outline on the following pages for more information and the website (www.natsci.tripos.cam.ac.uk) for full details.

See overleaf

www.natsci.tripos.cam.ac.uk
natsci@admin.cam.ac.uk
Natural Sciences (cont.)

Entry requirements for Natural Sciences

'Science/mathematics subjects' refers to Biology, Chemistry, Physics, Mathematics and Further Mathematics. It does not include Psychology.

All Colleges require A Levels/IB Higher Levels in at least two science/mathematics subjects, see also subject requirements for Year 1 options (right opposite).

Some Colleges require AS or A Level/IB Standard or Higher Level in a third science/mathematics subject and/or particular subjects. See individual College websites for details.

A Levels

Most students have at least three science/mathematics A Levels and having just two will restrict your Part IA subject choice. In these circumstances you’ll normally be expected to achieve A* in both of the science/mathematics subjects and encouraged to take an additional science/mathematics A Level. The more useful combinations are:

- A Level Chemistry, A Level Mathematics, and AS Level Biology or Physics
- A Level Physics, A Level Mathematics and AS Level Further Mathematics
- A Level Biology, A Level Chemistry, and AS Level Mathematics or Physics

If you don’t have A Level Mathematics, you’re required to complete some preparatory work before the start of the course and must take Mathematical Biology as your mathematics subject in Year 1 (see opposite).

International Baccalaureate

The A Level subject advice above also applies to the IB.

Other qualifications

See p43 and consult any Admissions Tutor for further advice.

Admission assessment

Pre-interview written assessment (see p43 and www.cam.ac.uk/assessment).

Year 1 (Part IA)

You study three experimental sciences (from eight, 1-8 below/opp) plus one mathematics (from two, 9-10), chosen at the start of the first term. Some Part IA subjects have a competitive entry due to limited space.

You should indicate in your SAQ (see p7) whether your interests lie broadly in biological or physical sciences. The choice isn’t absolute, and many students change direction before they start or as they progress.

For each option, you usually have three hours of lectures, some practical work and one supervision per week. Assessment varies depending on the option taken but always includes written examinations. There may also be practical examinations or continuous assessment of practical work.

1. Biology of Cells

Highly desirable A Level Biology

Useful preparation A Level Biology

- Biology of Cells introduces you to cell biology – topics such as cell structure and dynamics, macromolecules, biochemistry, genetics, molecular biology, development and cell communication. This option is for biological and physical sciences students who wish to explore the topical and rapidly advancing fields of cell biology, genetics and bioinformatics.

- The Biology of Cells and Computer Science options cannot be combined.

2. Chemistry

Essential A Level Chemistry (A Level Mathematics is essential to continue to Chemistry A in Part IB)

Highly desirable AS/A Level Mathematics

- Chemistry is concerned with how and why molecules form, and what determines their properties and the way in which they react. You’ll learn about the key concepts and theories which help us to understand and rationalise a wide range of molecular phenomena.

3. Computer Science

Essential A Level Mathematics

Useful preparation AS/A Level Further Mathematics and/or Physics

If you wish to take this option, you’re required to complete a preparatory online course:

- In Computer Science, you explore the theoretical and practical foundations of computer science – computer programming (in ML and Java), algorithm design and analysis, and floating point and numerical computation.

- The Computer Science and Biology of Cells options cannot be combined.

4. Earth Sciences

No previous subject knowledge necessary.

- Earth Sciences introduces the processes that create terrestrial plants such as rocks – you learn about the forces driving plate tectonics, volcanic eruptions, climate change and biological evolution, and discover why other planets are different to Earth.

- Practical experience is gained in the laboratory and on a compulsory one-week field course in Scotland.

- Earth Sciences offers a wide scientific perspective and leads onto a broad range of careers. See the introductory course list on the Department website.

5. Evolution and Behaviour

Highly desirable A Level Biology

- This option explores the origins, evolution and diversity of life on Earth, major transitions such as the origin of eukaryotes and multicellularity, and the evolution of behaviour, intelligence, sociality and culture.

- You develop practical biological skills through practical classes and a field course.

- Evolution and Behaviour is relevant to the study of Cell and Developmental Biology, Ecology, Evolution and Diversity, Genetics, Plant Sciences, Psychology and Zoology.

6. Materials Science

Essential A Level Mathematics, and either Chemistry or Physics

- Materials Science studies the structure and properties of materials in an effort to develop new and improved materials for advanced technological applications.

- Topics covered include how liquid-crystal displays work, materials design inspired by biomaterials and why airplanes don’t fall apart.

- You engage in experimental activities such as fuel-cell construction and nanoscale characterisation.

7. Physics

Essential A Level Mathematics, and either Physics or Further Mathematics

Useful preparation AS/A Level Further Mathematics

- Physics encompasses topics including Newtonian statics and dynamics, oscillations and waves, electric circuits, and gravitational and electromagnetic fields.

- It also introduces new themes such as special relativity and quantum mechanics.

- Part IA Mathematics (B, right) must be taken in parallel with this option.

8. Physiology of Organisms

Useful preparation AS/A Level Biology and/or Physics

- Physiology of Organisms explores and compares the physiology of a wide range of organisms by studying the different solutions developed by animals, plants and microbes to the problems of survival.

- Topics include respiratory and osmoregulatory systems, homeostatic mechanisms, and how plants and animals detect and respond to changes in their environments.

9. Mathematics

Essential A Level Mathematics

- Mathematics focuses on mathematical techniques used in the physical sciences.

- Subjects covered include vector calculus, vector algebra, matrices, complex numbers, ordinary and partial differential equations, elementary probability theory and computing techniques.

10. Mathematical Biology

Highly desirable A Level Mathematics

- Mathematical Biology focuses on mathematics relevant to biologists, particularly mathematical modelling.

- Subjects covered include differential equations, compartmental analysis, coupled nonlinear systems, probability, statistics, matrix algebra and ecological modelling.

- Weekly computing practical classes teach simple programming via biological examples.

- A significant amount of A Level Mathematics material is needed to understand Mathematical Biology. Therefore, if you don’t have A Level Mathematics you’re required to complete 20-40 hours of preparatory work before you arrive, and are given alternative teaching and support during the first term in order to develop necessary mathematical skills.

Further information about the options and the various teaching and assessment methods can be found at: www.natsci.trips.cam.ac.uk/subject-information/part1a.

Being taught by your subject’s leading minds is an experience in itself, and who can explain ideas better than the people who actually came up with them!

Nick
Natural Sciences (cont.)

Year 2 (Part IB)

In Part IB, you choose three of the following subjects. Some build directly on Part IA subjects and some introduce what are essentially new areas.

For most subjects you can typically expect to have three lectures, some practical work and a supervision each week.

For timetabling reasons not all combinations are possible.

Biochemistry and Molecular Biology
- This option studies biological processes at the molecular and cellular level, building on Part IA Biology of Cells.
- Topics explored include gene structure and expression, enzyme catalysis, protein engineering, and control of cell growth and differentiation.
- Practicals teach important skills that are developed in subsequent years.

Biology of Disease
- This option is concerned with the scientific study of disease and encompasses all aspects of disease, including causes and effects, and the organism’s response to disease.
- Biology of Disease involves a broad range of biological disciplines, including cellular and genetic pathology, immunology, microbiology, parasitology and virology.

Cell and Developmental Biology
- The subject consolidates and extends your knowledge from Part IA Biology of Cells, building on concepts of cell and cellular biology.
- It covers sub-cellular structure and function, signalling within and between cells, the development of multicellular tissues and organisms, and the experimental approaches to these.

Chemistry A
- Chemistry A focuses on the theories used to understand chemical bonding, structures and reactivity.
- You’re introduced to quantum mechanics and shown how this and related theories can be used to make sense of many chemical and physical properties.

Chemistry B
- Chemistry B focuses on three main topics:
  - organic (carbon-based) chemistry, which forms the basis of molecules as diverse as pharmaceuticals and synthetic polymers
  - the enormous range of compounds and structures formed by other elements (inorganic chemistry)
  - the chemical processes which are the basis of life

Earth Sciences A
- This option covers the surface environments of the Earth – the atmosphere, hydrosphere and biosphere – together with their geological products.
- It encompasses sedimentology, palaeobiology, oceanography, tectonics and sedimentary basins.
- You have laboratory work and compulsory field courses in Cumbria and Southwest England.

Earth Sciences B
- Earth Sciences B deals with our planet’s formation and examines the chemical and physical processes in its interior.
- It covers mineral growth and crystallisation under different conditions; and the role of plate tectonics in geologic and metamorphic rock formation and its influence on surface volcanism.
- You have laboratory work and compulsory field courses in Cumbria and Southwest England.

Ecology, Evolution and Conservation
- Ecology explores the relationships between plants, animals and their environment.
- It covers marine, freshwater and terrestrial systems; human impact on climate change and aerial pollution; ecological genetics and ecological dynamics; and the world’s biodiversity, its origin and conservation.
- Practical work includes a field course in Surrey.

The third-year research project helps you to see if you want a career in research, and the lab experience is highly appreciated by employers and institutes.

Sophia

Evolution and Animal Diversity
- Explore the evolution and diversity of animals, and look at how their form, function and behaviour are adapted to their lifestyle and their environment.
- Comprises sections on Behaviour and Ecology, Brains and Behaviour, Insect Biology, Vertebrate Evolutionary Biology and Evolutionary Principles.

Experimental Psychology
- Experimental Psychology is the study of the mind, brain and behaviour through experimental and observational methods.
- Teaching is supported by practical classes.
- Topics covered include sensory processes and perception, learning, reasoning, cognitive and social development, psychopathology, social psychology, and intelligence.

History and Philosophy of Science
- This option explores the historical, philosophical and social dimensions of the sciences.
- Topics covered extend from early astronomy and alchemy to the discovery of DNA and climate change.
- We examine what is so special about science and what is the role of social and historical context in the production of knowledge.

Materials Science
- Materials Science looks at advances in materials and their chemical, electrical and mechanical properties, ranging from metals to polymers.
- You study how materials function in service, and the scientific principles of functional materials, such as semiconductors.

Mathematics
- Mathematics incorporates topics including more advanced matrix theory, Cartesian tensors, more advanced theory of differential equations, Fourier transforms, calculus of variations, complex analysis and group theory.
- Some topics involve continually-assessed practical work, using computers to illustrate and exploit numerical techniques.

Neurobiology
- Neurobiology covers the development, function and plasticity of the nervous system.
- You explore the different sensory systems, the motor system and higher functions of the nervous system (including motivation, emotion, language and memory).

Physics A
- Physics A provides a rigorous grounding in the principal themes of modern physics.
- The option deals with waves and optical systems, quantum physics and an introduction to condensed matter.
- A module on experimental methods supports your practical work.

Physics B
- Physics B lays the foundation for a professional understanding of physics and is built on the three key areas of classical mechanics, electromagnetism and thermodynamics.
- All students also take an introductory course in C++ programming, with associated practical exercises.

Physiology
- In Physiology, you study systems physiology in detail, concentrating on mammals, in particular man.
- The option covers function at the cellular level to the complex operation of major body systems at the level of the whole organism, and how these systems respond to challenges.

Plant and Microbial Sciences
- Plant and Microbial Sciences considers the fundamental biology of plants and microbes.
- Studying plants and microbes is essential to deliver sustainable solutions to global issues including food security, disease control, drug discovery and bioenergy supplies.

Further information about the options and the various teaching and assessment methods can be found at www.natsci.tripos.cam.ac.uk/subject-information/part1b.
Years 3 and 4 (Parts II and III)

Students can retain a broad study of science, though most pursue a single subject to a depth matching that of single science degrees elsewhere.

In Parts II and III, lectures are actively researching the topics being covered and many are world leaders in their field. Practical work is open-ended and most students carry out a significant research project which is assessed as part of the final examination.

SPECIALISING IN PART II IS APPROPRIATE FOR CONTINUATION TO A FOURTH YEAR PROJECT WHICH IS ASSESSED AS PART OF THE FINAL EXAMINATION. SPECIALISING IN PART II IS APPROPRIATE FOR CONTINUATION TO A FOURTH YEAR PROJECT WHICH IS ASSESSED AS PART OF THE FINAL EXAMINATION.

Speciaising in Part II is appropriate for continuation to a fourth year project which is assessed as part of the final examination.

Some Part II subjects have a competitive entry due to limited space.

A BROAD CURRICULUM

Biological and Biomedical Sciences

- Maintain a breadth of study by taking a major subject in a biological option and a minor subject from options in biology, biological anthropology, education, sociology and the history and philosophy of science.
- Dissertation replaces the practical laboratory-based research project.

Physical Sciences

- This option allows you to continue your studies in a chosen discipline together with another subject.
- You essentially take half of one of Part II Chemistry, Earth Sciences or Physics, alongside a further Part III subject and write a dissertation.

PURSUE A SPECIALISM

Astrophysics

- Part II Astrophysics introduces a range of contemporary astrophysics topics, such as relativity theory, physical cosmology and stellar dynamics.
- Part II students choose from options offered in Part II of the Mathematics course and by the Department of Physics, and undertake a substantial project.

Biochemistry

- Part II Biochemistry covers macromolecule structure and function, gene expression, and molecular cell structure and function of prokaryotic and eukaryotic organisms, and includes a practical project.
- Part II features a two-term research project carried out alongside a research team directed by a leading scientist, and discussion of advanced topical papers.

Chemistry

- Part II Chemistry offers various options in which to specialise, ranging from synthetic organic chemistry to atmospheric science, and from theoretical chemistry to chemical biology.
- In Part III, you join a research group in the Department and work on your own project for two terms.

Earth Sciences

- Some specialisation is possible within tectonics and geophysics, petrology, climate science and surface processes, palaeoecology and mineral sciences.
- Part II features an independent mapping project and a field course in Greece (both compulsory trips).
- Part II involves a major research project and a compulsory field course in Spain.

Genetics

- Part II Genetics covers how genetic information is passed from generation to generation, how genes work and control organism development and behaviour, and processes that give rise to genetic change.
- More informal sessions explore the social aspects, and implications, of genetic knowledge.

History and Philosophy of Science

- Part II offers a broad range of papers concerning the historical development of science, medicine and technology, the methods of scientific enquiry and the social and political dimensions of scientific knowledge.
- Part II students have the opportunity to carry out focused research on the topics that interest them.

Materials Science

- Materials Science is based in the physical sciences but links to the biological sciences and engineering.
- Part II focuses on the links between the processing, structure and properties of materials classes.
- Part II concentrates on recent developments, modern experimental techniques and cutting-edge research.

Pathology

- Pathology combines numerous biological disciplines and in Part II you choose two from: Cancer and Genetic Diseases, Dynamics of Infectious Diseases, Immunology, Microbiology and Parasitology, and Virology.
- An important element of the course is a project in which you join a research group.

Pharmacology

- Part II Pharmacology covers contemporary topics taken to the level of current research.
- Subjects covered include intracellular messengers, ion channels and transporters, anti-cancer drugs, strategies for drug discovery, and the control of neurodegenerative disease.
- A research project enables you to join an active research group.

Physics

- Part II Physics encompasses the core areas of electrodynamics, relativity, advanced quantum theory and statistical physics.
- Part II options include astrophysics, particle physics, and soft matter and biological physics.
- You also undertake a substantial project within a research group.

Physiology, Development and Neuroscience

- Physiology, Development and Neuroscience are broad but interlinked subjects.
- In Part II, you focus on Development and Reproductive Biology, Integrative Physiology or Neuroscience, or combine topics from all three.
- You take part in cutting-edge research during a two-term research project.

Plant Sciences

- Plants are increasingly the focus of key global issues: maintaining food, fuel and biodiversity despite climate change.
- You specialise in areas of your choice. Lecture modules include workshops and discussion groups, and you conduct a research project embedded within one of our labs.

Psychology, Neuroscience and Behaviour

- This option covers developmental neuroscience, molecular neurobiology, sensory transduction, central mechanisms of sensation and behaviour, neural circuits, control of action, memory and higher functions, and neural degeneration and regeneration.
- Technical workshops and an experiential research project of your choice provide practical training.

Systems Biology (Part III only)

- Systems Biology determines how parts interact to make a working organism, using computer models to describe the interaction networks and predict their performance.
- The option compiles lectures, computer-based practicals, seminars and a research project working alongside leaders in the field.

Zoology

- Zoology encompasses cell and developmental biology, behaviour and behavioural ecology, molecular approaches to evolution, palaeontology, population biology and conservation science.
- You choose options from these areas and some other Part II subjects and carry out research projects, working with leading scientists in these fields.

Further information about the options and teaching and assessment methods can be found at: www.natsci.tripos.cam.ac.uk/subject-information/part2.
Philosophy

Do you enjoy arguments on the pros and cons of general issues? Do you relish puzzle-solving? Do you like subjects that emphasise rigorous thought? Our Philosophy course encompasses all of these and much more besides.

Why Philosophy at Cambridge?
Philosophy explores human thought, the basis of knowledge, the nature of reason, consciousness and cognition, as well as the foundations of value and political theory. Its questions are intriguing and its study requires complex critical thinking, rigorous analysis and consideration of new perspectives.

Cambridge occupies a distinguished place in the history of philosophy. It was here, in the early twentieth century, that Russell, Moore, Wittgenstein, Ramsey and others developed the analytic style of philosophy that is now prominent in much of the world. Today, the Faculty retains a strong commitment to this analytic tradition, combining it with study of the history of philosophy from Plato to the present day to offer one of the most far-reaching courses of its kind available anywhere in the world.

Teaching and learning
Our approach emphasises the values of the analytic school: rigour, clarity and critical thought. But its content extends well beyond the analytic tradition and its main preoccupations. For instance, we currently offer papers on Greek and Roman, and early modern philosophy, as well as political philosophy and aesthetics.

You don’t need to have studied philosophy previously, but we do recommend you do some preliminary reading (see the Faculty website for suggestions).

I was drawn to philosophy because of the depth of the questions it tries to answer, and also because of the breadth of topics within the course.

Mat

Course outline
Much of the teaching takes the form of lectures, with additional classes for some subjects (such as first-year Logic).

You have weekly supervisions, for each of which you’re given topical reading and asked to write an essay which you then discuss with your supervisor. Although it varies throughout the year, each week you typically have between six and 12 lectures, and between one and three supervisions and/or small classes.

Assessment is predominantly by written examinations. However, in Parts IB and II one written examination can be substituted with two extended essays of 3,000-4,000 words. Part II offers the additional alternative of submitting a dissertation of 6,000-8,000 words on a subject of your choice.

This course outline information is correct as of December 2017. However, prospective students should be aware that there may be some restructuring of the course for 2019 entry. Please check online for the most up-to-date information.

Year 1 (Part IA)
The course is designed to accommodate the many students studying philosophy for the first time. In the first year, you acquire the reasoning skills that enable you to tackle philosophical problems and to think intelligently about abstract questions generally, not just gather information about who said what. Therefore, you’re encouraged to approach topics in your own way and we organise regular discussion groups for first- and second-year students.

Part IA gives you an introduction to philosophy through the study of four core compulsory papers:
- Metaphysics and Philosophy of Mind
- Ethics and Political Philosophy
- Logic
- Set Texts, such as Plato’s Meno, Descartes’ Meditations on First Philosophy and J.S. Mill’s On Liberty and The Subjection of Women

Year 2 (Part IB)
Years 2 and 3 focus on areas that particularly interest you. Part IB is about exploring the philosophical aspects of a range of issues, both practical and theoretical.

There are two compulsory papers:
- Metaphysics and Epistemology
- Logic

You then choose two further subjects from:
- Ethics
- Greek and Roman Philosophy (from Classics)
- Early Modern Philosophy
- Philosophy of Science
- Political Philosophy
- Experimental Psychology (from Natural Sciences, involving practical work)

Year 3 (Part II)

Our objective in Part II is to provide you with an understanding of various contemporary debates and to familiarise you with current philosophical concepts. Lectures explore current and new positions on debates and you participate in seminar discussions on advanced subjects.

There are no compulsory papers and you choose four from an extensive range of subjects. These include most of those mentioned above, studied at a more advanced level, as well as several papers covering new areas. Papers recently available include:
- European Philosophy from Kant
- Mathematical Logic
- Philosophical Logic
- Wittgenstein
- Aesthetics
- Philosophy in the Early Middle Ages

It’s also possible to take one or two papers from another course, such as Classics or Theology, Religion, and Philosophy of Religion.
Psychological and Behavioural Sciences

Psychological and Behavioural Sciences is an exciting, broad and flexible degree that covers all aspects of psychology.

Our course
Psychology is very diverse – overlapping with and contributing to many other disciplines such as anthropology, archaeology, linguistics, neuroscience, philosophy and sociology.

Psychological and Behavioural Sciences (PBS) at Cambridge gives you the opportunity to study cognitive, social, developmental and biological psychology within the broader context of the behavioural sciences.

The course covers, for example, cognitive psychology, psychopathology, language, brain mechanisms, gender, family relationships and influences, personality, and group social behaviour. A wide range of optional courses allow you to study the topics that interest you most in greater depth.

Teaching and facilities
In the Department of Psychology, you’re taught by lecturers and researchers of international excellence. Subject societies and seminar programmes offer regular talks from guest speakers too.

In addition to this academic expertise, you have access to the Department library and specialist collections held in associated department’s libraries – amounting to around 50,000 books and more than 150 periodicals – as well as other resources and computing facilities.

Professional accreditation and careers
The University’s teaching of psychology is accredited by the British Psychological Society (BPS). This means that students who successfully graduate (with at least second class Honours) achieve the ‘graduate recognition’ needed to pursue a career in psychology.

Many students continue with further study and research, and graduates are eligible for admission to professional courses in clinical, educational, forensic or applied psychology. Numerous past students of psychology at Cambridge have gone on to prominent positions in psychology and related fields throughout the world.

Our course also equips you with skills and knowledge applicable in a range of professional sectors. Other recent graduates have entered careers in the media, management, the Civil Service, finance, law and business.

Not all courses here give you the opportunity to cross the boundary between science and humanities – be prepared for the PBS fun!

Grain

Course outline
Teaching is provided through lectures, classes or seminars, and supervisions. Some papers include a practical element, which takes place in laboratories. You can typically expect two lectures a week for each paper.

You also have one to two supervisions a week to discuss your work and develop your reasoning and ideas.

Year 1 (Part IA)
In Part IA, you take a total of four papers, two of which are compulsory:
- Introduction to Psychology
- Psychological Inquiry and Methods (this includes practical demonstrations and exercises)

The remaining two papers are chosen from a selection of up to nine options. The optional papers available each year may vary but subjects include:
- biological and social anthropology
- education
- evolution and behaviour
- politics
- psychological methods and includes laboratory work
- philosophy
- sociology

At the end of the year, you sit a three-hour written examination in each paper.

Year 2 (Part IB)
Part IB provides a foundation for the research-led teaching of the final year while also allowing you to begin to specialise in those areas that most interest you.

You take four papers in total. All students take:
- the Social and Developmental Psychology paper
- the Cognitive Neuroscience and Experimental Psychology paper, which teaches research methods and includes laboratory work

The optional papers are selected from a broad range. The subjects may change from year to year but typically include papers in:
- biological and social anthropology
- history and philosophy of science
- education
- sociology
- neurology
- philosophy

You sit written exams in each paper at the end of the year.

Year 3 (Part II)
In your final year, you undertake a research dissertation of 7,000 words on a psychology topic of your choice. You also choose a further three papers from a selection available, each of which is assessed by a written examination.

The subjects of these papers may change from year to year but typically include the following topics:
- social and developmental psychology
- cognitive and experimental psychology
- behavioural and cognitive neuroscience
- criminology
- linguistics
- selected subjects from those offered at Part IB

Related courses
- Education
- Human, Social and Political Sciences
- Linguistics
- Natural Sciences

Duration
Three years – BA (Hons)

Typical offers require
- A Level: AAB (AABB-ABB)
- IB: 40-42 points, with 776 at Higher Level

Other qualifications
No specific subjects required by all Colleges

Some Colleges require
- A Level/IB Higher Level Biology and Mathematics

Admission assessment
Pre-interview written assessment

Cambridge Open Days – 5 July, 6 July (see p154)

Pre-interview written assessment

Related courses
- Education
- Human, Social and Political Sciences
- Linguistics
- Natural Sciences

Applying to Cambridge
Student Life
- Open days 2018
- College open days (sciences)
- Cambridge Open Days – 5 July, 6 July (see p154)
Theology, Religion, and Philosophy of Religion

This fascinating course enables you to combine the study of world religions with philosophy, ethics, history, literature, languages, sociology and classics. It explores contemporary and historic thought, culture and texts.

Excellent career prospects

Our course equips students with significant transferable skills that are highly valued in a wide range of professions. Around 40 per cent of our students continue to further study in theology or related disciplines, teacher training or law conversion courses. Other recent graduates have gone on to positions such as equity broker for an investment bank, marketing campaign executive, personal assistant to the head of a philanthropic foundation, and assistant bank, marketing campaign executive, personal assistant to the head of a philanthropic foundation, and assistant private secretary in the Civil Service.

A relentless pursuit

The study of theology and religion is increasingly important in a world where religious belief is a driving force behind social and political events.

Theology, Religion, and Philosophy of Religion is a broad and demanding degree that addresses fundamental questions through a range of religious traditions and philosophical standpoints. Encompassing the history, practice and thought of the major world religions of Buddhism, Christianity, Hinduism, Islam and Judaism, the course develops your understanding of the significance of religion and its cultural contexts.

You have considerable freedom to create a varied programme of study by exploring a diverse range of topics. Alternatively, you can follow a particular pathway if you wish to specialise in a specific area of interest.

World class resources

Cambridge is an excellent place to study religion – offering access to the latest research and historic resources in the Faculty, College and University libraries. For example, the University Library holds the Codex Bezae (an important early version of the Gospel) and the Genizah collection (a globally significant source for medieval Judaism).

Our outstanding teaching is delivered by world experts in a variety of faith traditions and in the study of religion, religious practice, and philosophy of religion.

Dominic

Theological combines breadth and depth, allowing a huge variety of options for different people – I’m always amazed at the number, range and quality of the papers offered.

Course outline

Teaching is provided through lectures, classes and supervisions. You can expect up to nine hours of classes and lectures each week (including six for non-language papers and three for languages), as well as a weekly supervision. Assessment is mainly by three-hour written examinations, but some papers are assessed by coursework.

Year 1 (Part I)

You take five papers designed to give you a broad introduction to the concepts, knowledge and skills required in the main areas of study. There are two compulsory subjects:

- one scriptural language (studied from scratch; no prior knowledge is expected) – Hebrew, New Testament Greek, Qur’anic Arabic or Sanskrit.

Plus three other papers from a choice of five, currently:

- Christianity and the Transformation of Culture – the study of processes of conversion and Christianisation in the late Roman world.
- The Question of God – exploring some of the major themes of Christian theology.
- Understanding Contemporary Religion – an introduction to the sociological study of religion.
- World Religions in Comparative Perspective – looking at the history, beliefs and practices of the main world religions and the problems of comparing them.

Philosophy of Religion: God, Freedom and the Soul

Great Theologians

You can also choose to take the Part IA Logic paper from the Philosophy course.

Year 2 (Part II A)

This builds on the knowledge and skills acquired in Part I. A wide choice of options is available, enabling you to develop a course suited to your own interests (scriptural languages are optional at this stage). You choose four papers out of 17, currently including:

- Introduction to Islam.
- Ethics and Faith.
- Philosophy of Religion: God, Freedom and the Soul.
- Great Theologians.
- an introduction to the sociological study of religion.
- World Religions in Comparative Perspective – looking at the history, beliefs and practices of the main world religions and the problems of comparing them.
- Philosophy of Religion and Ethics – introducing key questions in philosophy of religion and religion and ethics, ranging from antiquity to contemporary controversies.
- Life and Thought of Religious Hinduism and of Buddhism.
- Christianity in Late Antiquity.
- Religious Themes in Literature.

You can also choose to take the Part IA Logic paper from the Philosophy course.

Year 3 (Part III B)

In your final year, you choose four from a wide range of Special Subjects and interdisciplinary papers (topics may vary), such as:

- Religious Experience: Mesmerism, Spiritualism and Physical Research.
- God, Metaphysics and the Modern Challenge.
- Jews, Christians and Muslims Before and After Muhammad.
- Political Theology.
- Judaism and Western Philosophy.

You can choose to write a dissertation of 10,000 words in your third year instead of one paper.
Veterinary Medicine

Cambridge offers a world class opportunity to study the scientific basis of veterinary medicine and clinical veterinary science. Our course provides the fundamental building blocks on which to develop and excel in any veterinary field.

Veterinary Medicine at Cambridge
The Department of Veterinary Medicine has an international reputation as a centre of excellence, and is performing world-class veterinary research.
A major strength of the Cambridge course is the extensive use of practical teaching and the emphasis on small-group teaching from Year 1. Our staff includes world leaders in their field and our facilities include state-of-the-art equipment, a five-theatre small animal surgical suite, an equine surgical suite, an active ambulatory farm animal unit, a diagnostic unit, a superb post-mortem unit, and a Clinical Skills Centre that’s available to students in all years. We also have one of Europe’s leading cancer therapy units with a linear accelerator for delivering radiotherapy.

Selection
We are looking for committed students who are interested in the scientific principles that underlie the health and disease of animals. In addition:
- trainee veterinary surgeons must satisfy the Royal College of Veterinary Surgeons’ fitness to practise requirements, both when applying and throughout the course
- offer holders are required to undergo an enhanced Disclosure and Barring Service (DBS) check
- successful applicants are required to complete a confidential occupational health questionnaire
See full details and guidance at: www.undergraduate.study.cam.ac.uk/courses/veterinary-medicine.

The course is great! I’ve really enjoyed learning all the science background, while the third year allows you to focus on something that really interests you.
Josie

Entry requirements for Veterinary Medicine
You may enter up to four veterinary medicine/science courses in your UCAS application. Your remaining choice can be used for an alternative course without prejudice to your commitment to veterinary medicine.

A Levels
- A Levels in Chemistry and at least one of Biology, Physics, Mathematics.
- Most applicants have at least three science/mathematics A Levels and some Colleges require this and/or particular subjects. See College websites for details.

International Baccalaureate
A Level subject requirements also apply to the IB – Higher Level subjects satisfy A Level subject requirements.

Other examination systems
See p151-2 and consult any College Admissions Tutor for further advice.

Admission assessment
All applicants (including applicants to mature Colleges) are required to take a pre-interview written assessment (see p43 and www.cam.ac.uk/assessment).

Work experience
Work experience is not a requirement for applicants but some experience is useful to understand the profession and what is required of its members. We recommend applicants acquire two weeks of work experience, if possible.

Graduate entry
Graduates may apply as an affiliate student (see p37) to one of Lucy Cavendish, St Edmund’s or Wolfson Colleges with:
- a good Honours degree (2.1 or above, science subjects are desirable)
- passes at A Level (or equivalent), as above

Fact file

Duration
Six years – VetMB

2017 entry
Applications per place: 4
Number accepted: 59

Typical offers require
A Level A*AA BB 40–42 points, with 776 at Higher Level

Other qualifications See p35-2
See left for subject requirements

Admission assessment
Pre-interview written assessment (see p43 and www.cam.ac.uk/assessment)

Colleges
Available at all Colleges except Christ’s, Corpus Christi, Hughes Hall, King’s, Peterhouse and Trinity

Location
Map references D, M, W (see p158-9)

Open days 2018
5 July, 6 July, 14 September – booking required, see the Department website
College open days (sciences) Cambridge Open Days – 5 July, 6 July (see p154)

Related courses
Natural Sciences 98

Continued overleaf
Course outline
At Cambridge, you study the basic veterinary sciences first before learning to apply that knowledge to veterinary practice as a clinical student.

During your pre-clinical studies (Years 1-3), you are taught through lectures and practical classes (including 120 hours of dissection across the three years) in the central science departments, and College supervisions – you can typically expect 20-25 timetabled teaching hours each week. The clinical studies teaching is a mixture of lectures (in Years 4 and 5), practicals, tutorials, supervisions and clinical rotations.

In addition, you must complete a minimum of 12 weeks' work experience (pre-clinical extramural study) during the University vacations in Years 1 and 2 to gain knowledge of animal husbandry. During your clinical studies, you must complete at least 26 weeks of clinical extramural study, some of which may be undertaken abroad.

Your progress is continually reviewed by your supervisors and your Director of Studies. Formal assessment, which determines your progression through the course, takes a variety of forms including written essays, short answer questions and practical examinations.

Years 1, 2 and 3 (pre-clinical studies)

In Years 1 and 2, you are taught the core scientific knowledge and skills needed as a veterinary professional.

Taught by some of the world’s top academic scientists and veterinary surgeons, we provide you with the scientific and practical basis that will allow you to develop your veterinary career to the full, whether your aim is to deliver outstanding care or to push forward the boundaries of academic veterinary medicine.

In addition to core science, you follow the Preparing for the Veterinary Profession course (an introduction to the ethical, social and professional responsibilities of the profession) and courses in animal husbandry and management.

You can read more about Years 1 and 2 online at: www.biology.cam.ac.uk/undergrads.

Year 3
You specialise in one of a wide range of other subjects offered by the University to qualify for the BA degree. Options include:
- a single Part II Natural Sciences subject (see p104–5)
- Part II Biological and Biomedical Sciences (see p104)
- a subject less obviously related to veterinary medicine, such as Anthropology or Management Studies

This is a feature distinctive to our course and one which offers significant advantages to our undergraduates. As well as considerable satisfaction and enjoyment, this ‘extra’ year has been pivotal to many graduates’ career progression and all benefit from the global recognition of the Cambridge BA. You then continue to the three years of clinical studies at the Department of Veterinary Medicine, which is just a short walk or bike ride from the city centre.

Years 4, 5 and 6 (clinical studies)

Year 4
The emphasis of the clinical studies is to give you sufficient clinical knowledge and skills to begin to practise veterinary medicine (day to day competencies) and also to provide you with the scientific background you need to benefit from future trends and advances in veterinary medicine.

In Year 4, you study topics including:
- animal breeding, nutrition and welfare
- anatomical and clinical pathology
- microbiology and veterinary parasitology
- clinical pharmacology

You also learn about veterinary public health, including food hygiene, state veterinary medicine and the medicine of rabbits, rodents, reptiles and birds.

Clinical tuition begins with basic clinical methods and integrated teaching in the husbandry, management and medicine of horses and farm species. Two mornings each week are given over to practical clinical work including basic clinical examination of the main domestic species, radiography and post-mortem investigation. You also develop a range of technical and practice-related skills in the Clinical Skills Centre.

Year 5
You continue the different courses in species medicine started in Year 4, and instruction is given in subjects including:
- cardiology
- neurology
- oncology
- endocrinology
- gastroenterology
- anaesthesia
- respiratory system diseases
- communication skills
- practical clinical skills
- parasitology
- microbiology
- immunology
- ophthalmology
- surgery
- small animal medicine
- large animal medicine
- farm animal medicine
- companion animal medicine
- exotic animal medicine
- equine medicine

Five mornings every week are set aside for practical clinical work across various species and clinical disciplines. This includes visits to external establishments such as the RSPCA clinic, and opportunities to further hone your consultation and practical skills in the Clinical Skills Centre.

Year 6
This is a 40-week lecture-free year with tuition centred on clinical teaching, in which groups of just three or four students rotate through different disciplines in the hospital with individual clinicians. The small size of these groups means each student’s caseload is higher and they are given the maximum possible responsibility for the management of clinical cases. This allows you to develop your clinical and problem-solving skills and client communication skills in a real clinical practice environment.

Finally, you have a period of eight weeks’ elective study in which to explore a special interest.

Achievement of the VetMB degree allows you to become a Member of the Royal College of Veterinary Surgeons (MRCVS), which is the professional qualification required to enter practice.
Management Studies

Management Studies is offered as a Part II-only course. Students at any College can apply to transfer to Management Studies after two or three years of studying another subject at Cambridge.

A management environment
No undergraduate business degree by itself can teach someone how to be a competent manager: that comes with experience and then further education. What Management Studies enables you to do is to study the subjects relevant to management and the environment in which the manager operates, whilst still a full-time student. You develop a sound understanding of the fundamentals of management and various aspects of management practice, as well as gain practical experience in a real-life context.

You acquire the skills that a good manager needs, including the ability to apply critical analysis to management issues and an awareness of the responsibilities of managers in an economic, social and environmental context.

A stimulating environment
The Judge Business School – one of the best in the world – is responsible for Management Studies, and provides library and computing facilities for both carrying out coursework and preparing papers and presentations. However, amongst the most stimulating resources on the course are your fellow students: they come from different subject areas and have contrasting strengths, enabling you to learn from each other.

Teaching, topics and careers
Teaching involves lectures, supervisions and other active learning methods, such as a negotiations workshop. The six main areas of a manager’s work make up the core subjects of the course:
- business and management economics
- human resources and organisations
- operations and information systems
- strategy and marketing
- finance and accounting
- management science

The value of our course is evident in the successful careers of our graduates. Since its introduction in 1986, Management Studies students have found little problem in finding the type of employment they seek in industry and commerce. Recent graduates have gone on to careers in consultancy (for private equity and trade), marketing and communications, recruitment (in one case, starting their own consultancy), IT and information systems, and the finance sector (including an investment analyst and a risk analyst).

Fact file

Duration
One year

Entry requirements
Competitive entry after two or three years of another Cambridge course

Places available
60

Location
Map reference J (see p158-9)

1 Please note that not all Colleges allow students whose original course is three years to stay on to take Management Studies as a fourth year.

Manufacturing Engineering

Manufacturing Engineering is offered as a Part II-only course. Students at any College can apply to transfer to Manufacturing Engineering after completing Part I of Chemical Engineering or Engineering. Applications from other science courses may be considered.

Engines and entrepreneurs
Successful, wealth-creating industries are increasingly managed by engineers with an appropriately broad education and training. Manufacturing engineers naturally have particular expertise in the design and operation of manufacturing facilities, but increasingly their role is as leaders of multidisciplinary teams. Manufacturing Engineering gives you a thorough grounding in manufacturing technology and management, together with an understanding of the full range of activities involved from market analysis through product design and production, to sales and distribution, all set firmly within a financial and business context. As well as the engineering and business sides, you also acquire a sound understanding of the human aspects of industry and develop leadership and people skills.

An international emphasis
Towards the end of the course, students are encouraged to organise a voluntary overseas research tour for the whole group to investigate an area of current relevance. Recent projects have looked at how the manufacturing industry is emerging and evolving in countries such as India and China, and the Californian approach to industrial sustainability.

Teaching
Lecture courses (taught papers) provide the academic framework for the subject, and are complemented by project work, industrial visits, a programme of personal and business skills development, as well as projects based at the University and in industry. Successful completion of the programme leads to the award of the BA and MEng degrees.

Careers
Our graduates are much sought after for demanding jobs, in manufacturing but also in other branches of engineering, consultancy and commerce, and indeed a diverse range of other fields. They’re equally well-placed to start their own companies, having gained a comprehensive understanding of how business works and having acquired contacts within a large number of national and international companies.

Fact file

Duration
Two years

Entry requirements
Competitive entry after successful completion of Chemical Engineering Part I (see p153) or Engineering Part I (see p67)

Places available
60

Location
Map reference W (see p158-9)