

SIXTH FORM COURSE GUIDE

FOR THOSE ENTERING THE
LOWER SIXTH IN SEPTEMBER 2020

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Choosing your Lower Sixth subjects

Introduction

This booklet is intended to help you to make a considered choice of the courses you hope to pursue next year. It offers a brief description of the various courses that are available and of the combinations that can be chosen.

At Canford, we offer sixth form courses that lead for most subjects to an A level. All subjects are linear, which is to say that the only external exams taken will be at the end of the Upper Sixth year.

We will ask most pupils to continue with four subjects until the Lower Sixth exams at the end of the year, even though one will (generally) be dropped going into the Upper Sixth. It is important to resist cries of 'why am I doing this subject when I will drop it without being given the chance to take an external exam?' Every year we make changes on the A level choices of well over a third of the Upper Sixth year, following their Lower Sixth exam results. Without the opportunity of choosing the best three from four subjects, there is a strong risk that pupils will do less well in A level as a consequence. Very often, it is the same pupils who have sworn blindly that they are dropping Chemistry, or English, or whatever it might be, who opt for that subject in preference to another once they know the results of their end of year exams.

Most subjects are taught as A levels, but there are four subjects which are taught with the Cambridge Pre-U specification, which can be taken alongside A levels in other subjects, and lead to UCAS points and university offers in the same way as do A levels:

French

German

Spanish

Art

What exams will I take?

Under the reformed A level curriculum, pupils will no longer end up with a qualification in the subject they drop at the end of the Lower Sixth year. This policy is in common with the vast majority of schools, and pupils will not therefore be at a disadvantage when applying to Universities. All external exams will be taken in the final term of the Upper Sixth year.

In addition to subject teaching, we offer academic enrichment to all who have, or would like to develop, a greater intrinsic interest in a particular subject. In the first term, all pupils will receive information about the opportunity of doing EPQ (Extended Project Qualification). The course for this involves preparation for writing academic essays (there is an internal school competition in the first term, and pupils are encouraged to enter for external competitions after Christmas), as well as teaching of critical thinking and research skills. After Christmas, those pupils carrying on with the EPQ programme will continue to attend lessons where they will receive more individual guidance about their own project. In addition, pupils are initially given introductory lectures and taster courses in most subjects (including some not taught at Canford). As intellectual maturity develops and interests become clearer, these courses become more intensely focused on the subject that will form a basis for each pupil's university application.

The Connections programme continues in the Upper Sixth and in the Lower Sixth, there is a specific programme for all pupils called the Ivy House qualification.

Built on the 3 Ivy House foundations of self-knowledge, self-empowerment and self-leadership, The Ivy House Award is a 20-session programme bringing transformative personal and professional learning to year 12 pupils, delivered through a combination of engaging digital content, personal journal activities and discussions facilitated by Canford staff.

By taking The Award, pupils can build the confidence needed to step up and take ownership of their future, including

- The relationships they build
- The work they choose
- The confidence they have in themselves
- The impact they make in the world

Choosing your Lower Sixth subjects:

- Is your combination of choices possible? Check with table below
- Will they form a good basis for choosing your Upper Sixth subjects?
- Are they appropriate for the career you wish to follow?
(Please take advice from the Head of Careers and Heads of Departments.)
- Are you good at the subjects you have chosen?
- Do you enjoy them?

Timetable of Choices

24 th November	A level Choices Forum: Option system explained to Fifth Formers and parents
Friday 24 th January	Fifth Form Parents' Meeting
Friday 31 st January	Provisional choices submitted.
Monday 9 th March	Choices finalised. (Changes may be made after this date, but we cannot guarantee to accommodate them, though every effort will be made to do so.)

leuan Weir
Deputy Head Academic
October 2019

Organisation of the Course

Lower Sixth subjects are taught in four groups, as shown below, with pupils opting for no more than one subject from each group. Further Maths is chosen as a separate option in Group 5. But if you do Further Maths you must chose Maths from Group 4 block (and not Group 1), please.

Group 1	Group 2	Group 3	Group 4	Group 5
Business Studies Chemistry Computing Economics English History Maths Music Philosophy and Theology Physical Education Politics Spanish	Biology Business Studies Chemistry Design Technology Economics English French History Latin Philosophy and Theology Physics	Art Chemistry Classical Civilisation Drama Economics English Geography German Philosophy and Theology Physics Politics Spanish	Art Biology Design Technology Economics French Geography History Maths Physical Education	Further Maths
Note that not all subject combinations fit into this grid. Where possible, the arrangement of subjects within blocks will be changed to allow any pupil choices that do not fit into the pre-set combinations above. Although all pupil choices can normally be accommodated by this means, it is not possible to guarantee this in advance.				

Careers and Higher Education Guidance

The aim of the Careers/HE Department is to provide a supportive and impartial service that will help pupils to ask and to answer the right questions, so that they may proceed in an informed way to make decisions about their future. These decisions will be made by the pupils. No-one will try to tell them what they **have** to do, but many people (including the Careers Department), such as parents, friends, House staff, and teachers, may all have relevant and helpful things to say, or can direct them towards someone or some resource that does.

Pupils need to understand some things about themselves, about their likes and dislikes, about their talents and skills, and about what sort of lifestyle they want to follow. They will be helped to understand what each type of career involves, what essential skills (not only academic) they should have and whether it will suit their own needs. They need to know what qualifications and what experience are required before they can follow a particular path. We also aim to help our pupils recognise their non-academic skills and enable them to demonstrate them from the variety of activities in which they will inevitably become involved.

We have resources in the Careers Department and in the main Library that are dedicated to help: books, magazines, prospectuses, computer databases, and so on, and these may be consulted at most times. The Careers Department is open throughout the week, including Saturday mornings, with staff available to deal with queries and offer advice: there is an open-door policy, or you can book an appointment. We are assisted by other staff with particular areas of responsibility, such as Medicine, US universities and Oxbridge, who can be consulted. In addition, Tutors, House staff, Heads of Departments and indeed all teachers are available to give advice and assistance. Relevant talks and presentations are arranged with outside organisations.

Of course, the choice of career is a process which takes place over an extended period of time. What we are trying to do is help pupils identify a suitable direction, not necessarily a specific career. Some pupils will already have some ideas; others will have none. Some will never change their mind; others may seem never to make up their mind. At certain moments over the next few years at Canford, though, there are decisions that have to be made by pupils that will have implications for their future.

Here is a summary of some important events and the particular support offered:

Shells

From 2018, Shell pupils will complete a short online “**Aspirations Questionnaire**” which will provide them with valuable information about career directions that they may be suited to, including:

- Subjects at GCSE & A Level required for specific career areas and the different routes available
- Links to relevant and helpful websites
- Access to an online careers database for further research

CHE Bulletin

Monthly newsletter sent to Fifth and Sixth Form pupils and parents with up to date information about events involving UK and Overseas Universities, Degree Apprenticeships, familiarisation programmes, Gap Year options and work experience opportunities.

Fifth Form

- Pupils will have an opportunity to participate in **Careers Aptitude Testing** which involves an online interests’ questionnaire and psychometric tests. An online individual report is produced with the option of one-to-one discussions with external careers advisers. The pupils are encouraged to research the paths suggested and to discuss their findings with school staff and parents.

- This brings pupils to what, in many cases, will be their first potentially significant decision: the **choice of Sixth Form subjects**. What is chosen at this time **may** have a very significant effect on future options, although for many careers it will not.
- Pupils are also encouraged to seek **work placements** in the Fifth and Sixth Forms, which for all can be a useful introduction to adult working life and which for some vocational careers (eg Medicine) are essential. Any experience of the workplace can provide valuable insight and the recognition and development of skills.

Lower Sixth

- **Careers experience** and other courses run by various organisations are publicised and recommended as pupils move towards their next big decision over life post-Canford - university choices in UK or overseas, degree and higher apprenticeship options, gap year programmes, school leaver schemes, going directly into employment or otherwise.
- A **Careers Symposium** takes place in which some 50 - 60 Old Canfordians, current parents and others are available to talk to pupils about their careers.
- The options for a Gap Year are publicised, and pupils attend Gap Year talks and a Gap Year Fair.
- Talks on various aspects of UK university admission are given by university admissions officers. **HE Seminars** are run in the school at which pupils can talk to subject specialists about reading particular degrees at university.
- Representatives from overseas universities (US, Canada, Australia, Europe) are invited to present and provide information to interested pupils.
- Pupils can attend the local **UCAS Convention**, at which they can talk to representatives of, and gather information about, the majority of UK universities, and trips to **university Open Days** are arranged and encouraged.

- One-to-one discussions with tutors and members of the Careers department about future options also take place. Although the majority of Canford leavers have proceeded to UK universities with or without a gap year, and this is likely to remain the case, other options such as studying at US or EU universities, school leaver schemes or straight into work are also considered and supported. The growing popularity of Degree Apprenticeships is now also featuring more regularly.
- We are in the process of developing an Alumni network involving Old Canfordian business men and women, with the aim of helping pupils make contacts to understand what is involved in the transition from school to the workplace. This can involve help, advice and support and in some cases work experience opportunities.
- UCAS Apply workshops are held at the end of the Lower Sixth year to ensure all who will be applying to university are registered online and can therefore work on their application over the summer holidays.
- “UCAS and the other Options” Presentation for Lower Sixth parents takes place in the Summer Term to help parents understand the other potential options and the processes involved.

Upper Sixth

- UCAS applications are made from the very start of the Upper Sixth year, and there is good evidence that early application results in early offers.
- Interview Practice: Many universities and employers interview applicants, and interview training, using an external organisation, and support are offered.

Careers and the world of work are changing all the time, as new technologies, new leisure interests, new financial pressures, etc. all impact upon our lives. It is likely that current pupils will have to work for more years than their parents will do, and their careers will probably change and diversify much more often than is the historic norm. The majority of Canford leavers in the past have gained a place at their first choice UK university, around half typically after a

gap year, but recently there has been growing interest in USA and other overseas universities, and other post-Canford options.

The availability of up-to-date information is crucial, and pupils will be guided and informed through the next few years, but they are also advised to keep alert themselves to the options as their aptitudes are developed and their interests mature. This is where keeping a record of their experiences will become significant in providing evidence of past situations where pupils have demonstrated some of the key skills sought by universities and employers in the future; skills like teamwork, problem solving, communication and leadership. Parents and pupils are encouraged to contact the Careers Department with any queries at any time so that we can help provide an informed service relevant to an individual's needs. We hope to ensure that we educate our pupils in understanding what to expect after Canford and to provide them with the ability to recognise, articulate and evidence non-academic (as well as academic) skills and attributes to prepare them for their future.

Mike Doherty
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Biology

Examination Board: AQA

Structure of course

All external exams for the A level will be taken in the summer of the second year. In addition to a grade for your score, on these papers you will also receive either a “pass” or “fail” for the practical skills you have developed over the course.

For Biology, there are three two hour papers: Paper 1 is on Modules 1 to 4 only, Paper 2 is on Modules 5 to 8 only and Paper 3 is on all Modules and includes a 25 mark essay question. Papers 1 and 2 both count 35% to your final mark, while Paper 3 counts for 30%.

Why study Biology?

Biology is a very popular and fascinating subject which will give you a real insight into how your own cells and organs work and also how all the living things on Earth interact. The course has much material that is right at the cutting edge of our current knowledge of Biology.

Biology is a practical subject. Throughout the course you will carry out many practical activities including (as just a few examples):

- using microscopes to see cell division
- dissection of animal systems (hearts, lungs, kidneys etc.)
- using aseptic techniques to study microbial growth
- genetically engineering bacteria
- investigating animal behaviours

These experiments will give you the skills and confidence needed to investigate the way living things behave and work. It will also ensure that if you choose to study a Biology-based subject at university, you will have the practical skills needed to carry out successful experiments in your degree. We are particularly lucky at Canford to have a school site which is excellent for the study of Biology, as well as extremely well equipped laboratories.

Suitable subject combinations

Biology is best combined with Chemistry. Pupils intending to read science or medicine at university are likely to add Maths, Physics or Geography and it is possible to take Biology as a stand-alone science. There is no doubt that studying all three sciences at GCSE will be very useful, although if you have done dual science this will be no obstacle.

University courses and careers

As well as the obvious choices of Medicine and Biology at university, many pupils go on to read closely related subjects, such as Molecular Biology, Biochemistry, Environmental Science, Genetics and Marine Biology as just a few examples. Each year around 25 OCs start a biologically related course at university. Even if you are not planning on something like this in the future, the interpretation, data analysis and experimental skills you develop will be very useful to you both at university and for life in general.

Brief description of the topics covered

Unit 1 Biological molecules

Here we look at the biochemistry of the most important building blocks of all organisms: water, carbohydrates, lipids, proteins and DNA. We then start to link their structures to their functions.

Unit 2 Cells

All life on earth is made of cells. We look at the components of a cell, what they do, how they divide, how substances are transported into and out of cells and we look at how the body defends itself against disease.

Unit 3 Organisms exchange substances with their environment

All organisms need to extract useful materials from their environments and to release waste materials. In this unit we look at how gas exchange, digestion, absorption and transport are achieved in different organisms.

Unit 4 Genetic information, variation and relationships between organisms

Here we look at the central role of DNA in determining the appearance of an organism. We study how the information in DNA is used to make proteins, how genetic diversity arises and how molecular evidence can be used to investigate the relatedness of organisms.

Unit 5 Energy transfers in and between organisms

This unit is all about the precise molecular detail of photosynthesis and respiration and then how these can be applied to ecological systems.

Unit 6 Organisms respond to changes in their internal and external environments

Here we study the details of how the nervous and hormonal systems send messages and also look at how plants are able to detect and respond to changes in their environments.

Unit 7 Genetics, populations, evolution and ecosystems

You may well have done some genetics at GCSE but this unit extends this much further and then uses the mathematical principles generated to look at evolutionary processes in a new light.

Unit 8 The control of gene expression

This unit looks at how genetic mutations can result in diseases, how gene expression can be controlled and how our knowledge of biochemistry can be used to manipulate organisms to our own ends (biotechnology).

Business

Board: EdExcel

Overview of content

Paper 1 - Marketing, People and Global Businesses – 35% of total mark

Questions will be drawn from Themes 1 and 4, and from local, national and global contexts.

Paper 2 - Finance and Operations, Business Decisions and Strategy – 35% of total mark

Questions will be drawn from Themes 2 and 3, and from local, national and global contexts.

Paper 3 will assess content across all four themes – 30% of total mark

Questions will be drawn from local, national and global contexts. For Paper 3, there will be a pre-released context document issued on our website in November of the previous year.

The context will focus on a broad context, such as an industry or market in which businesses operate. Questions will focus on the broader context.

The second section will focus on at least one strand within the context provided, such as a particular business. Each section will contain unseen stimulus materials comprising quantitative and qualitative evidence.

Pupils **cannot** take any of their research or investigation data carried out as part of the pre-release into the examination.

Overview of assessment

- All three papers are written examinations, each worth 100 marks and two hours in duration
- Each paper comprises two sections (pupils answer all questions from both sections)

Brief Description of the Course

Business A level is the study of decision-making in organisations. By the end of the Lower Sixth, students will have learned about the theoretical and practical nature of business and the business environment. Initial focus is on the key functional areas of Finance, Human Resources, Operations and Marketing; how they are managed, how they interact with each other, and how they are affected by the external environment in which the firm operates. Students will be challenged through case studies and asked to select, explain and justify their suggestions for the most appropriate course of action in any given context.

In the Upper Sixth, the material, like a real business, develops a more strategic approach. Pupils are expected to develop answers that take account of the wide range of external influences that affect a modern firm in the Strategic Management module.

Whilst the course requires an ability to analyse and interpret quantitative data with basic arithmetic techniques, the best candidates are those with an interest in business and an ability to put themselves in the shoes of real business people. Crucially, pupils must be willing to make decisions and explain their reasoning. The course is accessible and rewards hard work with good results.

Combinations and Courses

The Business course provides an excellent preparation for a career in commerce and also opens up a wide range of opportunities in higher education. The subject can be studied with a variety of other subjects, such as languages and sciences, and, in making choices about university courses, pupils are guided by experienced members of the Business Department.

Former Business pupils have found careers in finance, marketing, retail and the media, while others have taken more specialised routes into personnel management, accountancy and insurance. Setting up their own businesses is also an oft-stated ambition.

Finally, previous media hype as to whether a Business A Level is viewed poorly by University Admission Departments has now been dismissed. Both Oxford and Cambridge, and many other high-profile and prestigious institutions have confirmed that it is a valuable and valid selection.

Chemistry

AQA Chemistry specification 7405 (A-level).

<http://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7405>

The course is examined by three 2-hour terminal papers. In addition, pupils will receive a pass or fail for their practical competency.

A-Level Paper 1	Inorganic + some Physical	120 mins	105 marks
Paper 2	Organic + some Physical	120 mins	105 marks
Paper 3	Any content	120 mins	90 marks (inc 40 practical based and 30 multiple choice)
Practical skills will be examined in all 3 papers.			
+ Practical Endorsement Certificate (pass/fail)			

Topics

Physical Chemistry: atomic structure; amount of substance; bonding, energetics and Thermodynamics; kinetics and rate equations; equilibria; Le Chatelier's principle; K_c and K_p , Oxidation; reduction and redox equations; electrode potentials and electrochemical cells; acids and bases.

Inorganic Chemistry: periodicity, Group 2; Group 7; properties of Period 3 elements and their oxides; transition metals, reactions of ions in aqueous solution.

Organic Chemistry: introduction to organic chemistry; alkanes; alcohols; halogenoalkanes; alkenes; optical isomerism; aldehydes and ketones, carboxylic acids and derivatives; aromatic chemistry; amines; polymers, Amino acids; proteins and DNA; organic synthesis; organic analysis; nuclear magnetic resonance spectroscopy; chromatography.

Throughout the course, pupils will engage in many practical activities, develop necessary skills and will be awarded, on satisfactory completion of the 12 practical activities required by the exam board, a separately reported pass for their practical endorsement.

GCSE requirement

Pupils must have achieved at least a level 7 at IGCSE Chemistry or equivalent ,but we would recommend that they have achieved a level 8 or 9. The more demanding topics at GCSE, like moles and equilibria, are fundamental ideas at A Level and, without a secure understanding of these at the start, pupils will find it very difficult to pass A Level Chemistry.

We would also recommend that pupils have a level 8 or 9 at GCSE Maths as 20% of the marks are awarded for complex GCSE Maths.

Suitable subject combinations

Suitable A Level subject combinations are too numerous to cover every eventuality, but the following are popular:

Chemistry, Physics, Mathematics

Chemistry, Biology, Physics/Mathematics

Chemistry, Biology, Geography

If a pupil knows they wish to study a scientific course at university, then they would strongly be encouraged to do at least three of the Sciences or Maths. Chemistry is an ideal fourth subject for an Arts or Social Science based pupil who wants to bring breadth to their Sixth Form studies e.g. a prospective lawyer would be well served by English, History, Latin and Chemistry – as Chemistry would develop and strengthen analytical skills.

Chemistry is very popular at Canford, with over 100 sixth formers studying the subject. In recent years, a number of Canfordians have won places at Oxford or Cambridge to read pure Chemistry or its related subjects.

University courses and careers

Very few medical, dentistry or veterinary University courses do NOT require you to have A-Level Chemistry.

Many other degree courses strongly recommend or require Chemistry A-Level on their entrance requirements i.e

Biology, Biochemistry, Biotechnology, Chemical Engineering, Chemistry, Environmental Sciences, Genetics, Geology, Materials Science, Microbiology, Pharmacology, Physiology.

Chemistry is regarded as one of the most difficult A Levels and, as such, is viewed by the Russell Group as a facilitating subject (a subject most commonly required for entry to degree courses at leading universities). It is also extremely highly regarded by the banking and financial services industry as well as the legal profession.

There has been a big push in recent years for pupils to take STEM subjects (Science, Technology, Engineering and Mathematics) at University as there is an expected shortfall in graduates expected in the next few years. More information can be found at <http://www.wherestemcantakeyou.co.uk/>. In fact, when asked what advice he would give his young self, David Cameron said “keep on with the science subjects because understanding of science will be so important in your future life”.

Classical Civilisation

Board: OCR

Why Classical Civilisation? Classical Civilisation is open to all pupils entering the Sixth Form. The course does not require any previous study of Classical Civilisation at all or knowledge of Latin or Greek.

It is arguably more important than ever to follow a course of study which enables you to think independently of what you are being told and understand and value the vital connections between cultures. This subject has significant contributions to make not only in many specific subject areas but also in the aesthetic, ethical, linguistic, moral, political, social, spiritual and technological areas of human experience. Classics shows how modern culture has developed from the classical past, how the civilisations of Greece and Rome have helped in shaping modern Europe, and how classical influences are still important in today's world. Classical Civilisation also develops the critical, evaluative, presentation and research skills which enable pupils to go on to university to study a wide range of courses.

Description of the Course:

The new Classical Civilisation syllabus has changed almost beyond recognition and now includes material culture (manmade objects such as statues, temples vase paintings, coinage and art) and classical thought, in addition to the more traditional text. As such, it is even broader than before in its scope and far closer to the structure of a university course.

We shall begin at the beginning with a study of Homer's *Iliad*, the epic poem considered by the Greeks themselves to be a foundation of their culture. In exploring the world of Greek heroes and gods, we have the opportunity to examine their attitudes and values and to appreciate the lasting legacy of the Homeric world from 'The Hobbit' to 'Star Wars' to 'Game of Thrones'. In

comparison and contrast is Virgil's *Aeneid*, the 'Roman version'; both cornerstones and landmarks in Western literature. Drawing inspiration from Homer, as well as from his own cultural and political context, Virgil explored what it was to be a hero in the Roman world.

Following on from these two great stories, we shall examine each civilisation in more detail: the Greeks through their religion and philosophy, and the Romans via their use of heroic ideals in imperial propaganda.

Although the study of Greek religion is a common one at GCSE (and before), this course looks into the role and nature of lesser known beliefs: the cult of the hero, the mystery religions and the rise in philosophy with its more radical and controversial ideas.

The idea of a politician 'spinning' their public image is a familiar one; this is an opportunity to study one of the best. Through a study of Augustus, you will examine how a relatively unknown 19-year-old became the man who made the Roman Republic his own; following Julius Caesar and overcoming - among others – Brutus, Cassius, Cicero, Mark Antony and Cleopatra, in order to do so. We examine text, the use of myth and material culture in the study of Augustus' relentless desire to ensure that everything Romans saw, heard and read was exactly as he wanted.

The Structure of the Course

The course is divided into three components;

H408J/11 The World of the Hero - worth 40% examined by written paper of 2 hours 20 minutes

H408J/22 Culture and Arts; The Imperial Image - worth 30% examined by written paper of 1hr 45 minutes

H408J/31 Beliefs and Ideas; Greek Religion - worth 30% examined by written paper of 1hr 45 minutes

The opportunity to select four subjects to study in the Lower Sixth makes Classical Civilisation a worthy and compatible choice in any combination of subjects; from Art, Drama, English, History, Politics, Philosophy, Religious Studies, and, of course Latin, to the modern foreign languages it contains the building blocks for. As classical culture is so diverse, many other subjects also relate well to Classical Civilisation. Science pupils may choose to study it both to provide a rewarding contrast and breadth in their studies and because all good Classicists share a scientific, analytical approach to evidence.

Computing

Course: A-level (7517)

Why study Computer Science?

Computer Science is becoming ubiquitous. It permeates every aspect of our lives, yet this was not predicted 20 years ago. In the future, who can tell how its importance will grow? Certainly we can say that big data, cyber security, machine learning and quantum computing will have great effects. It is one of the few fields today where individuals who have a brilliant idea and, crucially, the skills to develop them, can have real impact. Today's generation of Computer Scientists will be shaping all our futures in the years to come.

Pupils will learn to write robust and elegant code based around the permanent core programming concepts found in all programming languages. This enhances not just their knowledge but also practical problem solving, initiative, creativity, lateral thinking and problem decomposition. It is also great fun and something that, whilst challenging, pupils thrive on. We will be developing using Python and Pycharm, a professional, but user friendly, development environment.

In the first year, we move fast, quickly covering the basics of programming, then move onto advanced concepts like Object Orientation, as well as the theory behind computation. We look into: how to solve problems; data representation in the computer, including encryption; computer systems architecture; computer communication and networking. This makes for a really interesting mixture of theory and practice.

In the second year, we extend our studies into many exciting areas such as: big data; web systems and wireless networking. This is in conjunction with looking at the theory of computation in much greater depth. The A level project is an exciting opportunity for pupils to write a really challenging and

substantial program in a domain of their choosing. Whilst this is a significant commitment, it is a really excellent opportunity to be truly creative and independent. It provides the pupils with plenty to discuss at interview.

Entry Requirements

Ideally you will have taken Computer Science at IGCSE or GCSE. If you haven't done an official course, but have taught yourself the basics of programming, then you will also cope well. If you have no experience, but real drive then you are advised to spend time in the summer learning to program. We will be using C# on the course, which is a powerful, industrial strength platform that is also used in the Unity game engine. An indication of future success would be your Computer Science or your Mathematics IGCSE grade, and a grade B, at least, would indicate you are able to cope with the content of the course.

Suitable Subject Combinations

Computing is, of course, a natural partner of, if not an extension to, Mathematics and the Sciences. It is also the subject of understanding, and analysis, and it complements and is complemented by English, History, Latin, and Modern Languages. It is also a creative process in production and final solution, and would therefore complement the Arts.

Examination Structures

7517 A level Computer Science

Paper 1 40% of A level 2.5 hours - on screen live programming exam and questions.

Paper 2 40% of A level 2.5 hours - short to medium length questions.

Non-exam Assessment 20% of A level – pupil developed project.

University Courses

The Russell Group states that Computer Science is useful for the following degree courses: Aeronautical Engineering, Biochemistry, Biology, Chemical Engineering, Chemistry, Civil Engineering, Computer Science, Economics, Electronic Engineering, Engineering, Geology, Mathematics, Materials Science, Mechanical Engineering, Medicine, Optometry, Pharmacy, Physics, Psychology and Sociology. Undoubtedly, it would be useful to any course in which the student has to think and solve problems.

Careers

Careers opportunities for people with knowledge of computing are unlimited. The United Kingdom computer software and hardware industry is desperate for suitably qualified graduates. In addition, computing graduates are demand in Finance, Engineering, Science, Media and Animation, Education, Medical research and so the list goes on.

Design and Technology

The Design and Technology A Level specification is:

The Pearson Edexcel Level 3 Advanced GCE in Design and Technology: (Product Design 9DT0)

Entry Requirements:

It is highly desirable that prospective pupils should have undertaken a course giving a solid foundation for advanced level work, which would typically be a GCSE in Design Technology, attaining at least a B grade.

The course is split into two main components:

Component 1: Principles of Design and Technology. This is a theory module and takes the form of a written examination of 2 hours and 30 minutes' duration and is worth 50% of the qualification.

Pupils will be required to apply knowledge and understanding of a wide range of materials; including modern and smart materials, and processes used in product design and manufacture. They will be required to develop an understanding of contemporary industrial and commercial practices applied to designing and manufacturing products, and to appreciate the risks involved. A good working knowledge of health and safety procedures and relevant legislation is also mandatory. They must also have a sound working knowledge of the use of ICT and systems and control, including modern manufacturing processes and systems, and pupils will be expected to understand how these might be applied in the design and manufacture of products. Designers from the past provide inspiration for present and future designing. An awareness of the important contribution that key historic movements and figures have on modern design thinking is also relevant. It is increasingly important that pupils develop an awareness of wider issues in design and technology, that design and technological activities can have a profound impact on the environment and on society and that these, together with sustainability, are

key features of design and manufacturing practice. All of this will be delivered through class teaching and short focused tasks that enable the pupils to link the theoretical with practical applications.

Component 2: Independent Design and Make Project. This is also called the Non-Examined Assessment (coursework) it will take the form of a folio and a product, the folio will contain approximately 40 sides of A3 paper (or electronic equivalent). This unit is also worth 50% of the qualification.

The purpose of this component is to undertake a substantial design, make and evaluate a project which will test pupils' skills in designing and making a prototype. The term 'prototype' means an appropriate working solution to a need or want that is sufficiently developed to be tested and evaluated (for example, full-sized products, scaled working models or functioning systems). Pupils are required individually to define a context and in consultation with a client to identify a specific problem from which they develop a range of potential solutions. The project must allow candidates to apply knowledge and understanding in a product development process to design, make and evaluate prototypes. In this project, pupils will be encouraged to use creativity and imagination when applying iterative design processes to develop and modify designs, and to design and make prototypes that solve real world problems, considering their own and others' needs, wants, aspirations and values. There are no limits to project selection beyond the time and resources available and the appropriateness of selection in matching individual pupils' potential. Pupils are expected to take ownership of all aspects of their work in this project, in order to allow them total control of their responses and to target assessment criteria effectively, and to maximise their achievements. In order to reach high attainment levels, pupils must adopt a commercial design approach to their work, reflecting how a professional designer might deal with a design problem and its resolution, and their final product will be made to a very high standard.

Higher Education and Careers

Design Technology is accepted at all universities and it can complement entry to many areas, specifically Engineering and Design-based courses. It is also relevant to Architecture, Surveying and modern technological careers. In recent years, many of our pupils have also moved on to a wide range of differing degree courses such as Business, Management, Computing, Advertising and Marketing.

Drama and Theatre Studies

OCR Drama and Theatre H459

The course is an ideal companion to many other A-levels, in particular to English, History, Classics and Modern Languages. Candidates study dramatic texts and their social and historical context as well as their literary and dramatic qualities to create an interpretation for a contemporary audience; they also create their own pieces of assessed practical work to demonstrate their understanding of the work of key practitioners working within particular dramatic styles.

Set texts range from Hamlet to up-to-the minute contemporary drama such as Black Watch and Earthquakes In London, with the emphasis on exploring through practical workshops as well as written essays.

Written Exam

- Assesses knowledge and understanding of drama and theatre
- Study of at least three works from an exciting list of plays
- Analysis and evaluation of live theatre

Devised Practical performance work

- Performance of group-devised drama with consideration of the entire aesthetic (to include lighting, sound, costume, set - all with support from the Drama department)
- Devised piece is influenced by the work and methodologies of one prescribed practitioner out of several that we study, such as Stanislavski, Brecht, Artaud, Berkoff, Frantic Assembly etc.
- Portfolio supporting and informing the devised piece

Scripted practical performance

- Practical exploration and interpretation of two extracts from a chosen play.
- Extracts are performed as a final assessed piece (pupils may contribute as performer, designer or director)
- A concept pro forma is submitted, defining the intended dramatic outcomes as agreed by the group, to inform the marking criteria of the visiting examiner.

Academically, Drama and Theatre Studies A Level complements many subjects as part of a university application. Increased confidence and understanding of how to achieve a desired effect may also contribute to more successful interview style and public speaking in general. The particular range of skills and requirements for independent learning help to develop mature study habits, a deep understanding of collaborative work and an appreciation of the relevance of historical events, artistic styles and cultural practices to the modern world.

Economics

Exam Board: AQA

A Level - 3 units: 3 exams taken in June of Upper Sixth

Paper 1 **Markets and Market Failure**

One third of A Level, 2 hour examination. (80 marks)

Section A: Two optional data response questions are set; candidates answer one. (40 marks)

Section B: Three optional essay questions are set; candidates answer one. (40 marks)

Paper 2 **The National and International Economy** (Same structure as Unit 3)

Paper 3 **Economic Principles and Issues (Synoptic Paper)**

One third of A Level, 2 hour examination. (80 marks)

Section A: 30 compulsory objective test items. (30 marks)

Section B: Investigation Material with questions. (50 marks)

A brief description of the course:

Economics is divided into:

1. Microeconomics, the study of individual decision making by households and firms; for instance, price determination or wage determination. By using supply and demand analysis and logical reasoning, pupils investigate the allocation of resources, market failures such as monopoly and demerit goods, as well as addressing critical issues such as pollution, externalities and congestion, assessing the policies used in terms of cost/benefit analysis and effectiveness of outcome.

2. Macroeconomics, which is the study of the major issues of growth, employment, inflation and the balance of payments, with a consideration of the use of fiscal, monetary and supply side policies to address them. The role of government and its success and failure is analysed in a non-political manner. At A Level, there is a wider focus on EU, global and developmental issues.

A discursive and investigative approach to learning allows access for both the numerate and the literate, although there is a significant correlation between performance in Economics and Mathematics. [For those who think that they *may* wish to continue with the subject at university level, many top universities actually require an A level in Mathematics.] The combination of analytically based argument and subjective opinion on alternative policies gives a real contrast to the certainties of science, yet one based in rigour of analytical thought and justified conclusions. There is the opportunity to consider life-influencing problems from the problems raised by excessive levels of national debt to global warming, and to seek solutions to the resource allocation problems engendered by these issues.

The Future:

Economics goes well with a wide range of subjects, particularly Mathematics, though non-mathematicians with good verbal and literary skills and a real interest in current affairs can also thrive. A significant proportion of Canfordians who study the subject go on to good universities to study Economics, Business and Management courses. There are few careers now where an understanding of the fundamentals of economics is not a significant asset.

English Literature

'In the universe, there are things that are **known**, and things that are **unknown**, and **in between**, there are doors.' *William Blake*

Exam Board: OCR

A Level Award H472

Component 1: Drama and poetry pre-1900

2 ½ hour exam (*closed book*)

3 texts – 1 Shakespeare, 1 drama, 1 poetry

Component 2: Comparative and Contextual Study

2 ½ hour exam (*closed book*)

2 prose texts + unseen

1 topic; 2 texts chosen from the topic area, at least one of which must be from set topic list

Topics include: The Gothic; American Literature 1880 - 1940; Dystopia; Women in Literature.

Component 3: Literature post-1900

Coursework – 2 essays, one of 1000, one of 2000, words.

3 texts – 1 poetry, 1 prose, 1 drama. All texts must be post - 1900; one must be post - 2000

Essay 1: Focused on close reading; essay can be analytical or recreative

Essay 2: Linking and comparing two texts

The Course

The course covers a wide range of text types and genres from Chaucer onwards. Pupils may study the latest novel alongside a 17th century play and a 19th century poem, and are always encouraged to go beyond exam requirements and deepen their understanding of a particular period or topic. Discussion and essay writing are the core activities. In the words of Blake, studying English provides doors between the known and unknown.

The Department's enrichment programme includes guest speakers and author events, visits to the theatre and cinema, and trips to areas of literary interest.

Subject combinations

English crosses the divide and goes well with most subjects; universities welcome the communication skills that the course develops. History, Geography, Modern Languages, Economics, Latin, Music, Theatre Studies, and sometimes Biology or Mathematics, make excellent combinations.

University and Careers Relevance

As an academically rigorous course English remains a key A Level for any Arts, Languages or Humanities courses and English is itself a very popular university choice. Medicine and Science courses often welcome it and English degrees take people into all walks of life including the law, the media and advertising, business, writing, teaching and research.

French

Examination Board: Cambridge Assessment (Pre-U)

Cambridge Pre-U Certificate Principal Course seeks to bring the teaching and learning of French into close contact with the target language culture with authentic language. By giving a solid context both linguistically and culturally within which candidates can develop their linguistic skills and awareness, Cambridge Pre-U strives to move away from the emphasis on classroom language towards an immersion in authentic language and culture. The Pre-U course is highly regarded by universities, attracts a rewarding UCAS tariff and is compatible with A Levels in other subjects. The course offers a wide range of insights into the *francophone* culture, ranging from political matters to social issues, the world of art or any relevant contemporary aspects of French speaking countries. The work of acclaimed film-makers like Bertrand Tavernier is also explored as part of the course.

Paper 1 Speaking gives pupils the opportunity to research their chosen topic in depth, promoting the development of critical and independent thinking through close engagement with the target language.

Paper 2 Reading and Listening will challenge the pupils' comprehension skills. The extensive use of authentic materials will acquaint the candidate with the necessary vocabulary and skills to help them to develop a true feel for the language.

Paper 3 Writing and Usage consists of a discursive essay and a separate usage section.

Paper 4, or the Topics and Texts paper, provides the opportunity to explore at least one cultural topic and one piece of literature in depth, encouraging the pupil to develop a personal engagement with the culture.

Ideally, candidates willing to complete a Cambridge Pre-U Course in French will have achieved GCSE or IGCSE grade A* or A. A modern language can be combined with virtually any other subject.

By the end of the two-year Pre-U course, pupils will have:

- researched a topic relating to the history, current affairs or culture of a French-speaking country for oral presentation and discussion.
- read widely from a range of sources to enable them to handle a variety of topics in reading, listening and writing exams.
- mastered key grammar points, including verb usage, for the grammatical section of the exam.
- developed the skill to write at an advanced level (in French) about cultural topics and (in English) about a literary text.

University courses

Almost any university course can include a language, e.g. engineering, law, economics, science.

During your degree, you will be required to study or work abroad for a year. In your third year at university, there is the opportunity to participate in the *Erasmus* scheme. This provides you with a bursary to enable you to spend a year at a foreign university studying your degree subject, e.g. international law in Paris. In order to do this, a language at Pre U/A level is strongly recommended.

Careers

Modern languages graduates never have difficulty in finding employment. Traditional areas are translating, interpreting, the civil service, banking and finance. However, a qualification with languages can lead to wider opportunities in the international job market. It could enable you, for example, to work for an international company in the UK or abroad.

Geography

Why do Geography at A Level?

Whether you are a scientist or favour the humanities, Geography as a subject offers the opportunity to add breadth to your Sixth Form studies. An article from The Guardian said 'Geographers get to learn data analysis, and to read Robert Macfarlane. They learn geographic information systems. They can turn maps from a two-dimensional representation of a country's physical contours into a tool that illustrates social attributes or attitudes: not just where people live, but how, what they think and how they vote. They learn about the physics of climate change, or the interaction of weather events and flood risk, or the way people's behaviour is influenced by the space around them.' You will also finish the course equipped with a range of useful skills from graphical, statistical and analytical through to debating, presentation and argument.

There are many strong arguments for doing Geography at A Level but the overriding one should be your interest in the subject. We want to give you the opportunity to explore new ideas and give you a broad understanding of the landscape around you and an appreciation of some of the main issues facing humanity today.

Exam Board

Canford geographers study the Cambridge International A Level course. It is a linear two year course with all the exams at the end of the Upper Sixth. There is no coursework or controlled assessment.

Suitable subject combinations

Given its subject breadth and the range of skills required, Geography combines well with almost any subject. It is seen by the Russell Group universities as a 'facilitating' subject which enhances applications for a wide variety of courses. Popular combinations are with the sciences (especially Biology) and with Economics and Business Studies.

University courses and careers

There are only a few careers for which graduate geographers are not qualified: their transferable skills make them highly employable. All good universities provide Geography courses and we send a large number each year to study the subject at higher level, with OCs studying at Oxford currently. Other degree variations that Canford geographers have gone on to study in the past include marine geography, planning, geology, earth sciences, environmental studies and land management. According to the Higher Education Careers Services Unit, only 5.8% of geography graduates were still job-hunting six months after they graduated, against an average of 7.3%.

What will you study at A Level

The course is split into Physical and Human modules and you will have two separate teachers. You will study the following topics :

Physical topics : Hydrology, Weather, Geology, Hazardous Environments and Coasts

Human topics : Population, Migration, Settlement, Global Interdependence and Environmental Management

Please chat to any of the Geography teachers if you want to know more about any of the topics involved as we appreciate these might be unfamiliar.

Fieldwork

At present, we undertake several days of fieldwork during the Sixth Form course to local destinations. We take every opportunity to run lesson-time excursions in the local area to see the theory we are teaching in reality. We also encourage all geographers to find out more about the Partnership Trips which give fabulous geographical experiences. An optional international A level trip runs every other year during the February half term and complements the course.

Wider enrichment

We are fortunate enough to host an annual talk by the Royal Geographical Society at Canford which gives our Sixth Form geographers the opportunity to hear some world renowned speakers. We also participate in the local Geographical Association events which also offer conferences and events around the area. Entering the Young Geographer of the Year competition as well as locally run essay events will also offer our Geographers the chance for enrichment.

German

Board

Cambridge International Examinations, Pre-U German (9780)

Pre-U German is a stand-alone qualification offered by the same exam board as the IGCSE German course. German is highly regarded by universities and is compatible with all other A level and Pre-U subjects.

Principal Course

Pupils take all four components at the end of the Upper Sixth:

- 1 Speaking (25%)
- 2 Reading and Listening (25%)
- 3 Writing and Usage (25%)
- 4 *Topics and Texts (25%)

*This exam involves studying two historical films under the 'Divided Germany' theme: 'Barbara' and 'Jenseits der Mauer'. This is complemented by a literary text, 'Der Kaukasische Kreidekreis', regarded as one of Brecht's "most celebrated works and one of the most regularly-performed German plays."

The Pre-U course offers a uniquely holistic combination of advanced-level language acquisition, multiple language and communication skills development and cultural, topical and literary enrichment. It is an enjoyable and rigorous all-round preparation for a wide-range of degree courses involving German at the UK's very best universities. Prior to starting the Pre-U course, it is recommended that pupils have obtained at least a grade 7 at IGCSE.

The teaching is conducted in both German and English and each pupil has a weekly individual speaking lesson with a native-speaker teacher. As well as studying Pre-U topics and grammar in depth, pupils also learn about current affairs and life in German-speaking countries and acquire a wide range of academic skills which can be transferred to other subjects.

Pupils significantly widen their range of vocabulary and master complex grammatical structures and the fact that all exam components are taken at the end of the Upper Sixth also allows them the time to fully develop soundly-based linguistic competence, as well as cultural awareness and knowledge in an engaging, natural and meaningful way. The department has run trips to Berlin and Munich, talks by visiting speakers, listening clinics and many other cultural events. In conjunction with the course, all pupils are strongly encouraged to attend an intensive language course in Germany, Austria or Switzerland during one of the school holidays (most pupils spend two or three weeks at our partnership language school in Berlin where Canford pupils receive a 22% discount off the course fees).

Suitable subject combinations in the Sixth Form

Pre-U German is ideally suited to a number of academic disciplines; e.g. 'scientific' with Maths, Physics and Chemistry; 'social humanities' with History, Economics, Business Studies, Geography and Politics; 'linguistic' with English, Drama, French and Latin or a combination of all three. Crucially, including a language in the Sixth Form allows pupils to maintain a breadth and diversity in their studies, even while specialising in a specific discipline, and thus keep their university options open for longer and continue to develop multiple intelligences and academic study skills.

University courses www.daad.de/en

Apart from a degree specialising in Modern Languages with one, two or even three languages (including a new one 'ab initio'), almost any other university course can include German. Recent examples include Politics, Law, Economics, European Studies, Accounting and Finance, Chemistry, Film Studies, English Literature, Human Sciences and Engineering and the entry requirements from universities for combined honours courses like these are **very** favourable. In the third year of university, students can do a work placement with a range of companies (e.g. Allianz, Deutsche Bank, Audi, VW, Siemens, Bosch), work as a teaching assistant in a school or spend a year at a top German university studying their degree subject.

Alternatively, studying in Germany is also an attractive option. Many of Europe's top-ranked universities are located in Germany and most German universities still don't charge tuition fees to international students. www.timeshighereducation.com/student/best-universities/best-universities-germany

In both cases pupils will end up achieving a near-native level of proficiency in the German language (level C1/C2) alongside their degree course.

Careers www.languages.atwork.org.uk

Graduates with degrees involving German will have no difficulty finding employment, particularly if they have completed a work experience placement in Germany, Austria or Switzerland as part of their year abroad. Traditional areas are: Translation, Law, International Relations, Interpreting, Education, Civil Service, Business, Engineering, IT, Electronic Systems, Banking and Finance. It could enable them, for example, to work in German-speaking countries, for a multi-national company or for one of the many large German, Austrian or Swiss companies in the UK.

History

Board: Edexcel

Why study History A level?

Skills...

"History includes a phenomenal amount of transferable skills... What a good history student is doing is coping with a lot of diverse human-being-centred information and interpreting it, and that's what life throws at people, and what jobs throw at people."

Christopher Andrew, Professor of History, Cambridge University.

Studying History prepares pupils for a complex and competitive world. The challenges of the Twenty-first Century can only be understood in the light of what has gone before. Studying A level History will help develop your skills of:

- Evaluation
- Analysis
- Communication
- Argument
- Critical Thinking
- Empathy

Enhancing your University Profile...

An A level in History is a serious and well respected academic qualification. The **Russell Group** (the twenty-four leading UK Universities) included History on a list of "facilitating subjects" that specifically enhance a student's university application and "facilitate" access to competitive degree courses.

Compatibility...

History is compatible with all other subjects. It naturally complements and supports other humanities such as English Literature, Languages, Geography, Politics, Economics, Religious Studies and Classical Civilisation. In addition, as a well-respected academic qualification, History is an ideal

“fourth choice” in the Lower Sixth year for those pupils studying predominantly science subjects. Many medical schools welcome an A Level in a humanity as a foil to the requisite science subjects.

The Future...

Studying A level History opens up an enormous range of career and higher education opportunities. You will learn how to evaluate and analyse information, how to weigh up evidence and how to communicate ideas effectively. These skills are highly valued by universities and employers.

A level History is a prerequisite for a number of top Law courses and provides an excellent foundation for many careers including **journalism, advertising, the military, business and industrial management, financial services, broadcasting, the civil or diplomatic Service, publishing and teaching.**

What is on offer?

The History department is pleased to be able to offer a distinct thematic route through A level, that mixes elements of modern and early modern history to ensure a rounded programme of study.

This thematic route is focused on the nature, causes, and consequences of **Revolutions in both Early Modern and Modern Europe**. In the Lower Sixth, pupils will examine the long term causes and consequences of the English Civil War, Revolution, Republic and Restoration across the Seventeenth Century alongside a Depth Study investigating the tumultuous period of Revolution in Russia between 1894 and 1924. In the Upper Sixth, pupils will look into the revolution of Civil Rights and Liberties in the USA over the last 150 years.

Pupils will also complete a **coursework option** which will take the form of an independent enquiry of between 3000 - 4000 words that focuses on evaluating and analysing differing historical interpretations of the Origins of the Cold War.

Pupils will be examined in all four areas at the end of the Upper Sixth.

Structure of the course:

Lower Sixth	Revolutions in Early Modern and Modern Europe
Paper 1 Breadth Study A-level (30%)	Britain 1625-1701: Conflict, Revolution and Settlement
Paper 2 Depth Study A-level (20%)	Russia in Revolution, 1894-1924
Upper Sixth	Late Route
Paper 3 Themes in Breadth A-level (30%)	Civil Rights and Race Relations in the USA, 1850-2009
Paper 4 Coursework A-level (20%)	3000-4000 word independent enquiry, analysing and evaluating historical interpretations on the Origins of the Cold War

Latin

What does the course involve?

A Level Latin offers a stimulating and enjoyable way to experience a language and a civilisation which have had a huge influence on the modern world. Studying Latin will give you the opportunity to acquire and develop a wide range of linguistic and literary skills. Your learning will largely be an extension of the work you have become familiar with at GCSE, but in a smaller group that will enable you to receive far more individual attention, tailored to your needs. The atmosphere is scholarly but informal. You have already covered the major features of the language work at GCSE; the aim, therefore, is to consolidate and expand. The cream of Latin literature will be read in the Lower Sixth to prepare you for the examined texts at the end of the course.

Suitable subject combinations

Latin fits comfortably with a surprisingly wide combination of subjects. The technical side of Latin appeals to scientists and mathematicians; modern linguists find that the rigorous grammar puts their study of French, Spanish or German on a firm foundation; those studying English appreciate the close reading of Latin texts that we do, and that they can read in the original language texts that have formed the cornerstone of western civilisation and literature; finally, Humanities pupils find the wide-ranging nature of the subject and the focus on cogent argumentation very much to their taste.

University courses and careers

A qualification in Latin will help you stand out from the crowd. Admissions tutors in all subjects are pleased to see candidates with A Level Latin because such candidates generally come with a wide general knowledge and sound intellectual training. Subjects such as History or Law benefit from the precise attention paid to language and structure. Medicine, Mathematics and Science benefit not just from a greater understanding of scientific terminology, but because the thought processes in Latin are the same as in those subjects. And, of course, those whose enthusiasm for Latin develops during the Sixth Form can pursue a Classics degree at a range of top universities.

In terms of vocational employment, Latin is like most other subjects on the curriculum: there are only a few jobs for which it is essential, but very many for which it is useful – not so much for the specific content studied but because of the habits of mind acquired by studying it. Latin remains very highly regarded both by universities and by prospective employers; very few jobs require specific subject-related knowledge, but nearly all require the ability to think and respond intelligently to unfamiliar situations.

Classicists are highly employable! This is a fact borne out by the statistics on graduate employment and not just a view held by enthusiastic teachers of Classics. Employers can trust that they will be able to think logically and write and communicate clearly and precisely. The study of language requires rigorous attention to detail, a quality much needed in many jobs, while the study of literature, history and philosophy develops highly sought-after skills of critical analysis.

Examinations

We follow the course offered by OCR, which is 100% examination.

Four papers are taken at the end of the course:

Paper	Name	Content
01	Unseen Translation	Unseen Latin prose and verse, tested by translation into English.
02	Prose Composition	Translation of a passage of English into Latin. (Writing Latin is a new skill taught at A Level.)
03	Prose Literature	Questions on the two prose authors read during the Upper Sixth year.
04	Verse Literature	Questions on the two verse authors read during the Upper Sixth year.

The course offered in the Lower Sixth offers a foundation for all of the above. We teach the basics of Latin composition, discuss advanced grammar that goes beyond what is met at GCSE, practise the skill of unseen translation, and read a range of Latin authors to give you a good overall sense of the subject.

Maths

Mathematics, the Queen of the Sciences and Prince of the Arts, is the subject which both underpins our understanding of the world we live in, and allows structured abstract thought about almost anything. The universe itself, Bach's music, computers and the behaviour of fish shoals are all just maths-in-action. If you are interested in thinking, like solving problems, and are good at using numbers, then you should think seriously about A Level Maths.

Board: Edexcel

A level Mathematics

An A level in Mathematics will be viewed by any university as one of the most rigorous and analytical preparations for a degree. With a good grade in Maths, you will be a serious applicant for any of the academic courses at university: it is a qualification in thinking as much as a particular skill. Careers opportunities for mathematicians are boundless. Many end up working in the City, where numerical understanding and analytical ability are highly sought after. Maths also supports careers in medicine, management, accountancy, actuarial work and teaching. Maths is a prerequisite for degrees such as Engineering and Physics and many Chemistry and Psychology courses.

Course structure:

You will take three exams at the end of the Upper Sixth; Paper 1 and 2, which will assess the pure aspects of the course, and Paper 3 which assesses both the Statistics and Mechanics content from the course.

For the Pure Maths exams, you will study techniques used to solve mathematical problems: solving equations, manipulating algebra, trigonometry, drawing graphs and vectors are some of the familiar topics that you will meet in greater depth. Amongst the new material, you will

learn about Calculus, which is Newton's famous discovery used in almost every area of continuous mathematics: whenever a measurable value changes, its change can be analysed by Calculus.

The third exam will contain a mixture of both Statistics and Mechanics:

Statistics covers the elementary ideas of extracting information from data: an essential requirement if you have any ambition to understand properly what you read in newspapers or use efficiently the information available on the Internet. Statistics is also an essential ingredient in the advanced study of financial systems and Economics.

Mechanics considers how the behaviour of real objects can be predicted by solving equations. You will find this helps, and is helped by, Physics A level.

AS/A level Further Mathematics

Further Maths can be taken as an additional AS or A Level; whichever option you choose will be in addition to A Level Maths and all exams will be taken at the end of Upper Sixth. The Further Maths AS or A Level is designed to stretch and interest good mathematicians. It requires two further exams for the AS and four for the full A level. Some exams are compulsory and some are chosen from a list of options. It is invaluable if you hope to study university Mathematics, and is of great benefit to anyone considering a highly numerate degree like Economics, Engineering or Physics. It counts as an additional subject for university entrance and you will study Further Maths alongside the Mathematics A Level. In both the Lower Sixth and Upper Sixth, you will have some additional lessons in your spare lesson block in order to complete all the extra work required for either the AS or full A Level.

A Level Maths	AS Further Maths	A2 Further Maths
3 exams (with no choice): <ul style="list-style-type: none"> ▪ Pure 1 ▪ Pure 2 ▪ Statistics and Mechanics 	A Level Maths plus a further 2 exams: <ul style="list-style-type: none"> ▪ Paper 1 which will assess the pure content from the course ▪ Paper 2 Further Mechanics and Further Statistics 	A Level Maths plus a further 4 exams: <ul style="list-style-type: none"> ▪ Paper 1 and 2 which will assess the pure content from the course ▪ Paper 3 Further Statistics ▪ Paper 4 Further Mechanics

In the **Lower Sixth**, pupils will follow one of two programmes:

1. Aiming for **A level Maths** only. You will study Pure Year 1 and Year 2 and Statistics and Mechanics Year 1 and 2.
2. Aiming for **AS or A Level Further Maths**. You will study all of the A level Maths syllabus (Pure 1, Pure 2, Statistics and Mechanics) as well as some aspects of the pure content from the Further Maths AS/A Level.

Option 2 is a serious undertaking and is therefore only suitable for those with a significant interest in Maths and a desire to study for a degree in a subject with a high level of mathematical content. Those thinking of taking Further Maths are advised to discuss this with their current Maths teacher. You will be expected to work more independently if you take Further Maths.

In the **Upper Sixth** you will complete what you started in the Lower Sixth.

1. **A level Maths** only. You will complete your studies of Pure Year 2 and Statistics and Mechanics.

2. **AS Further Maths.** You will study all remaining pure content from the AS Level course as well as the Further Statistics and Mechanics AS Level content.
3. **A level Further Maths.** You will study all remaining pure content from the A Level course to prepare you for papers 1, and 2 as well as the Further Statistics and Mechanics A Level content to prepare you for papers 3 and 4.

Entry Requirements for Sixth Form Maths A Level:

You should expect to get a solid level 7 or a level 8 or 9 in GCSE or IGCSE. If you think there is doubt about this, you should speak to your Maths teacher. For Further Maths, we strongly recommend a minimum of a level 8.

Suitable subject combinations

Maths is, of course, a natural partner for the sciences, Economics and Computing, and many Canfordians take it alongside any or all of these. But it is also the subject of analysis; it supports well and is buoyed by analytical studies in English, History, Latin, and modern languages.

University courses and careers

Mathematics is a fundamental discipline that provides convincing evidence of numerical and analytical powers. It is required for careers in actuarial work and financial modelling, and highly prized by all employers in fields relating to business and finance. It is a required subject for university courses in Chemistry, Physics, and Engineering at most universities.

Music

Board: Edexcel

Structure:

Unit 1* Performing *8 minute recital, recorded to CD.*

Unit 2* Composing *1 composition and 2 technical exercises*

Unit 3 History, aural and analysis *2 hour written paper in 2 sections*

* these units are completed as coursework and are externally marked.
Unit 3 takes place in the summer exam session.

Description of the course

Music uses a 3 unit structure. This is due to the natural division of the subject into its three component elements, as shown above.

Performing

For performing, the expected minimum standard is Grade 6 at the point of submitting coursework (March/April of the Upper Sixth year). Extra marks are awarded, however, if you play at Grade 7 or 8 level. You can choose the pieces you would like to play. The 'final' performance has to take place during March or April of the Upper Sixth year.

Composing

One composition (which has to be written during the Upper Sixth year) either to a brief produced by the exam board or 'free choice', and two 'techniques' exercises, for example, chorales in the style of Bach are submitted. These are easier than they sound as there are lots of rules to follow and straightforward ways of writing them.

History, Aural and Analysis

This is where you study set works by 'real' composers, learning about their place in musical history, and about the structure of the pieces themselves. The aural component is similar to GCSE, but obviously is a bit more advanced!

Suitable subject combinations

Music can be taken alongside any other subjects. Recently, it has been taken with Science subjects (eg Maths, Chemistry and Physics) or with Languages/Humanities (English, French and History). Some people see it as a contrasting subject to broaden their interests, while others see it as their main subject, and choose their other options around it.

University courses and Careers

An A level in Music is essential for anyone wishing to read the subject at university. Recently, though, pupils have gone on to study subjects as diverse as Medicine, Engineering, Modern Languages, English and Geography having studied Music to A level as one of their three subjects.

Music A level is an academically rigorous subject and universities will accept it as such when assessing applications for any degree subject.

Indeed, Oxbridge admissions tutors are reported to 'like music'. Aside from the obvious careers in music-related industries, many people who have studied Music degrees have gone into careers in law, finance and other such areas. As an A level musician, you will be someone who can think independently, have the confidence to stand up in front of others and demonstrate commitment to what you do. These are all skills much in demand for any university course and, indeed, for the world of work in the future, whether or not the career or course is music-related!

Please note that GCSE Music must have been studied for A level Music to be taken, and that individual music lessons must be taken throughout the A level course to support preparation for Unit 1.

Philosophy and Theology (RS)

Some of the Key Topics and Themes:

Ethical Theories, Applied Ethics, Expression of Religious Identity, Ways of Moral Decision Making, Nature and Role of Religious Belief, Arguments for and against God's Existence, Personal/Religious Identity.

Ethos and Concepts:

Focused on debate, discussion and engagement with complex ideas, the A Level course offered is a fantastic overview of Philosophy and Theology.

You'll gain an excellent skill set which will help to set you apart:

- How to think critically
- How to write well
- How to hold a debate
- Philosophical logic – how to construct an argument
- Literary criticism – deconstructing texts and questioning everything
- Ethical and cultural awareness – highly sought after in the modern workplace
- Emotional intelligence
- Problem-solving and teamwork

Hugely engaging and intellectually stimulating, the course allows pupils to tackle issues as varied as: whether happiness or pleasure should be the ultimate goal in life, the morality of animal experimentation, genetic engineering, euthanasia and abortion, the value and purpose of human life, various arguments for and against the existence of God, personal identity, the problem of evil, medical ethics and whether the idea of a miracle-working God is a reasonable one ... to name just a few!

A lack of experience in Philosophy and Theology at GCSE should not put off bright and well-motivated pupils. A passion and interest in Philosophy, Ethics and Theology are key (and an open mind!).

Suitable subject combinations:

Philosophy and Theology is one of the fastest-growing departments in the school, with a significant increase in Sixth Form pupils over the past five years. This year we have three sets in the Lower Sixth and two sets in the Upper Sixth (50 pupils). The course is relevant to a huge range of subject choices, and it appeals to pupils with all kinds of academic focus.

Those who are more focused on the Arts and Humanities, on the other hand, will find the skills that they learn of argument and critical thinking are invaluable in their other subjects, and the breadth of the content often gives them relevant ideas to bring into other areas. The key skills developed through studying the course will assist the studying of other academic subjects. More importantly, Philosophy and Theology is a challenging and inspiring option and the benefits are far wider-reaching than simply gaining an external examination qualification.

University courses and careers:

As well as being a clear choice for those considering Philosophy or Theology, the skills and content developed over the course are highly prized by the very top universities as part of an application for a whole host of different disciplines. Old Canfordians have pursued careers as diverse as law, the Civil Service, education, journalism, publishing, banking and accountancy. It is a great option for those thinking of applying for medicine, as it promotes ethical awareness and empathy. Those considering applications for a Philosophy, Politics and Economics (PPE)-style course are particularly encouraged to consider this choice. The content covered provides an excellent introduction to the philosophical aspect of the degree, with top universities specifically mentioning the A level as a suitable choice in applying to the course.

"To be able to employ the disciplines of theology and philosophy effectively will not only make you a scholar of religion but equip you to embark on a wide range of careers." Oxford University

Physical Education

Board: AQA

Why study PE?

The multi-disciplinary nature of this subject means that it contains a large spread of topic areas that pupils find interesting, stimulating and relevant. It is a subject that really appeals to those who have an interest in sport and also those who relish applying scientific understanding to performance. There is a large coursework element, so a significant number of marks can be gained outside the examined environment. It is demanding, very definitely is not chasing a ball around a games pitch for two years, and most candidates relate to and enjoy it as a subject.

A Level

Paper 1

Written exam 2 hours

35% of marks

Section A: Applied physiology

Section B: Skill acquisition

Section C: Sport and society

Multiple choice, short answer and extended writing questions

Paper 2

Written exam 2 hours

35% of marks

Section A: Exercise physiology and biomechanics

Section B: Sport psychology

Section C: Sport and society and technology in sport

Multiple choice, short answer and extended writing questions

Coursework

30% of marks

Assessed in a practical situation as a performer or coach

And a written analysis of that performance

Suitable Subject Combinations.

Due to this subject containing both science and arts elements, it can sit alongside any subject. We do get a lot of individuals studying this subject who are also taking Biology or Chemistry, although not exclusively so.

University courses and careers.

In the twenty years that this subject has been offered at Canford, candidates have gone on to study in a wide range of areas. They vary from the obvious sports-based courses, to physiotherapy, psychology, biochemistry, business management, geography, sociology, and theology to name a few. Universities that candidates have gone on to are also varied and include the traditional such as Oxford, Exeter, Bath, Durham, and the new such as Plymouth and UWE.

Physics

The AQA specification has been chosen because it is a good foundation for any university science course and it has the advantage of optional sections in the second year. The options system allows a pupil to look at the applications of physical principles in an area that may be appropriate for their chosen degree.

Options

Physicists - Astrophysics or Turning points in Physics

Computer scientists – Electronics

Engineers – Electronics or Engineering Physics

Medical and Biological related courses – Medical Physics

Course Structure

The course is examined by three papers at A level and there is an internally assessed Practical Endorsement.

Paper 1	Paper 2	Paper 3	Practical Endorsement
Particles and Radiation Waves and optics Mechanics and materials Electricity Periodic Motion Practical skills	Thermal physics Fields and their consequences Nuclear physics	Practical skills and Data analysis And one optional module from: Astrophysics Electronics Turning points in physics Engineering physics Medical physics	The pupils complete a range of experiments to show they have developed appropriate skills during the course. They are expected to keep a clear record of their work in their lab books.
2 hour paper 85 marks 34% of A level	2 hour paper 85 marks 34% of A level	2 hour paper 80 marks 32% of A level	Separate qualification in addition to A level.

Most of the work examined in Paper 1 is covered in the Lower Sixth. Paper 2 and the options are taught in the Upper Sixth.

Practical investigation is a key component in our departmental ethos and is developed throughout the course.

Study Skills

The Pupils are encouraged to develop the independent study skills that are required at university. They are assigned a Physics Tutor and are expected to come and discuss physics problems with their teachers outside normal lessons. The Sixth Formers are required to produce a collaborative presentation of a physics topic of their choice.

There is an optional Physics Book Club which has a dinner once a term. Most pupils attend these functions as they tend to be good fun.

Trips

There are several trips associated with different topics. The Sixth Form will go to Thorpe Park and, if tickets are available, the Rutherford Appleton Laboratory. Other trips include visits to a local Observatory, Poole Hospital and several Engineering lectures and events (the Engineering Society).

Extra events and support

The department offers support for The Physics Olympiad competition, practical EPQ investigations and Oxbridge entry.

Sixth Form pupils have the opportunity to take part in the Formula 24 Plus competition.

What to choose with Physics

Our recommendation is that Physics A level is not studied as a standalone science. The most successful pupils usually combine Physics with at least one from Maths, Chemistry, Biology or Computer Science.

Government and Politics

Board: EdExcel

<http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/politics-2017.html>

Structure of the Syllabus

Unit 1 British Politics:

- 1) People and Politics: Democracy and political participation, political parties, electoral systems, voting behaviour, pressure groups and the media.
- 2) Political ideas: conservatism, socialism and liberalism.

Unit 2 British Politics:

- 1) Government of the UK: The UK constitution and reform, Parliament, the PM, Cabinet and the Executive, the Judiciary, and the relationship between the branches of government. Devolution and the UK's relationship with the EU.
- 2) Optional political ideas: one from the following: anarchism, ecologism, feminism, multiculturalism, nationalism.

Unit 3 American and Comparative Politics

- 1) US democracy and political participation, US political parties and their ideas, US pressure groups, US elections, the US constitution and federalism, the Presidency, Congress, and the US Supreme Court.
- 2) Comparative American and British Politics.

Syllabus Description

We offer a stimulating new course in British, American and Comparative Politics. There has never been a more exciting time to study Politics: Devolution, the prospect of Scottish Independence, Coalition Government, the surprise 2015 General Election result, the ongoing BREXIT crisis, the even more surprising 2017 snap General Election, the transformation of the political parties and the emergence of 'third parties', the 'Corbyn effect', and the 'Boris effect' In American Politics, there has been the Obama presidency and the surprise election of Donald Trump. More broadly, the emergence of populism in modern politics has contributed to a significant upheaval in 'established' politics. The new syllabus takes all this, and unfolding topical events, into account. Importantly, the syllabus presumes no previous formal study of the subject, because no GCSE in the subject exists, but that is no disadvantage. It is assumed prospective pupils will have a genuine interest in, or curiosity about, current events. The syllabus is designed with beginners in mind, and progresses to stretch them intellectually over two years.

The course requires pupils to develop a full knowledge and understanding of the contemporary political systems of the UK and the USA, the institutions of government and the relationship between them, and how the two political systems compare. Pupils will also study the political ideas underpinning the major parties of the UK and one of five optional political ideas: we currently offer 'nationalism.'

The syllabus encourages pupils to develop their capacity for critical thinking, to see relationships between different branches of government and politics, and to put their understanding and knowledge into a broader perspective, including comparison with other political systems. Pupils will acquire and develop a working knowledge and understanding of relevant contemporary political concepts, ideas and processes. They will learn the skills to comprehend, evaluate, and interpret a variety of political information. Pupils will learn to communicate and evaluate arguments and

explanations with relevance, clarity and coherence, making full use of appropriate political vocabulary.

Why study Politics?

We currently live in exciting and turbulent political times and now has never been a better time to study Government and Politics. Furthermore, the study of Politics helps young people to know their rights, entitlements and obligations as citizens, and informs them how the political process can be influenced in many ways other than voting.

The study of Politics also enables pupils to determine what they believe and why they believe it. Being able to express beliefs accurately and concisely is very useful, and forces individuals to reflect on what they are about. Additionally, the study of Politics is very much a 'live' subject, because it is topical, relevant and evolving right now: the examples pupils of Politics use to illustrate their work will not be drawn from a text book, but from the news, and that is exciting.

The study of Politics also enables individuals to better understand both contemporary Britain and the USA, to make sense of the news, and how both countries relate to their neighbours.

Finally, Politics will prepare pupils for some aspects of adult life: every aspect of human activity operates in a political environment of some kind, and pupils of Politics will be prepared for that. And on reaching 18, they will have opportunity to formally participate in the political process with a firm grounding in how to exercise that entitlement.

Suitable Subject Combinations

Government and Politics, because it is self-contained, may be taken by pupils who also study subjects as diverse as Art and Chemistry, but it will be of particular interest to those who have chosen to study History, English, Geography and Economics. It sits very well with Economics and/or

Business Studies and a Foreign Language for those interested in business-related careers. Furthermore, Politics is also an important foundation for Law, as post Brexit, the opportunities for commercial lawyers will be considerable.

University Courses and Careers (Refer to the Political Studies Association www.psa.ac.uk)

Pupils of Politics have access to a wide range of career and higher education opportunities. They usually enter business, finance, the professions (such as law) or public service. Politics confers a special insight into how government works. In Britain today, government and economy permeates all our lives, in business, schools, and the professions; they all operate in an atmosphere filled with politics. It is a practical, relevant and academic subject recognised and valued by employers and universities, providing a suitable foundation for those wishing to study for a degree in politics, history, law, business, management and journalism. Politics is often combined with Economics and a Foreign Language at university which suits those wishing to add a European/international dimension to their career path.

Spanish

Board: Cambridge Assessment (Pre-U)

Spanish-speakers are remarkably fortunate in the range and fascination of the culture available to enjoy. Pedro Almodóvar is one of the most exciting film-directors in the world, Gabriel García Márquez has been a Nobel Prize winner and outstanding writer of the past generation, and the music, art, history and politics of Spain and Latin America are packed with interest and variety.

Complementing the sciences (social and natural), the humanities, and, naturally, other languages (including Latin), the Pre-U course which we offer in the Sixth Form encourages exploration of these wonders, reflecting our strong departmental specialisation in social, political and cultural issues from across the Spanish-speaking world. Pre-U offers a better preparation than A-level in this subject for pupils who want to apply successfully to degree courses involving Spanish at the UK's top universities.

The Lower Sixth year is therefore an opportunity to develop a love for, and interest in, Hispanic culture and language. We use it to give pupils an overview of the Spanish-speaking world and the issues that define it. We examine contemporary aspects of South America, its political system and history, Franco, the democratic transition, the EU, and the cinema of Almodóvar. Later, we develop cultural topics in more detail, including studying social issues across the Spanish-speaking world and reading Latin American or Spanish literature.

The language focus of the first term is consolidation of the verb tenses initially covered pre-IGCSE. We then embark on studying the subjunctive, the main new feature of Spanish at sixth form level. The course content emphasises

educating pupils about what is happening in the Spanish-speaking world during their Sixth Form years. Sources include Spanish-language TV, newspapers, the internet and magazines. Speaking skills are developed in conversation classes with our Spanish and/or Latin American teachers.

By the end of the two-year Pre-U course, pupils will have:

- researched a topic relating to the history, current affairs or culture of a Spanish-speaking country for oral presentation and discussion.
- read widely from a range of sources to enable them to handle a variety of topics in reading, listening and writing exams.
- mastered key grammar points, including verb usage, for the grammatical section of the exam.
- developed the skill to write at an advanced level (in Spanish) about cultural topics and (in English) about a literary text.

The Pre-U course offers pupils a tremendous scope – e.g. history, literature, politics, cinema, drama, and art – just as undergraduates are able to do at university. All pupils taking Pre-U Spanish are encouraged to visit Spanish speaking countries and immerse themselves in the local culture. Frequent destinations are Spain, Costa Rica, Chile and Argentina.

In summary, we use Spanish to discover and gain access to peoples, cultures, and new perspectives on life. Over the last six years, our Spanish Sixth Form course has inspired more than half of those who have completed it to continue Spanish to degree level at top universities – a high proportion by any standards. A Modern Language qualification is highly respected by universities and employers, and a language is frequently combined with another arts, science, social science, or humanities subject at university level.

University courses

Almost any university course can include a language, e.g. engineering, law, economics, science.

Spanish and Spanish American Studies have grown enormously in British universities in recent times, largely as a result of the importance of Spanish as a world language and of the diversity of the cultures of Hispanic origin, including in the USA.

During your degree, you will be required to study or work abroad for a year. In your third year at university, there is the opportunity to participate in the *Erasmus* scheme. This provides you with a bursary to enable you to spend a year at a foreign university studying your degree subject, e.g. international law in Madrid. In order to do this, a language at A level is strongly recommended.

Careers

Modern languages graduates never have difficulty in finding employment. Traditional areas are translating, interpreting, the civil service, banking and finance. However, a qualification with languages can lead to wider opportunities in the international job market. It could enable you, for example, to work for an international company in the UK or abroad.



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