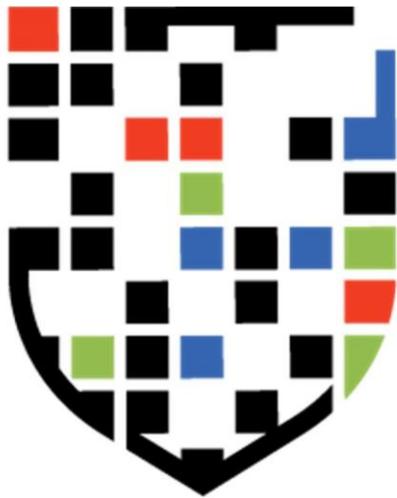


AS/A Level
Handbook
2018/19



CAMBRIDGE
INTERNATIONAL SCHOOL

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The University of Cambridge (established in 1207) is one of the oldest and most distinguished universities in the world. It has had a very widespread influence over the centuries. For example, its relationship with the USA goes back to 1636 when one of the University's senior members, John Harvard, founded Harvard University at Cambridge, Massachusetts.

University of Cambridge International Examinations (CIE) is part of Cambridge Assessment (CA), a department of the University of Cambridge that has been carrying out educational assessment internationally since 1863. Each year tens of thousands of candidates sit for Cambridge examinations in over 150 countries worldwide.

○ IGCSE Courses

In England in 1988 the General Certificate of Secondary Education (GCSE) was introduced for students from 14 to 16 years old. At the same time, Cambridge introduced an international variant named the International GCSE. IGCSE has an annual candidate entry of more than 250,000. It is taken in international schools and in large numbers of both public and private schools in many countries where there has been a desire to raise standards and to have a recognised international scale against which to measure performance.

○ AS and A Level Courses

The Advanced Level, or A Level, is the 'gold standard' of CIE qualifications. It is accepted as an entry qualification by universities of the European Union and very many around the world, on a par with the French Baccalaureate, the German Abitur, etc.

A Level examinations are usually taken after 13 years of education and are based on approximately 360 hours of guided learning normally over a two-year period. A Levels are highly specialised and a student will normally take three subjects, although occasionally exceptional students take four.

There are six passing grades (A* – E). Minimum matriculation requirements are at least two pass grades. University courses for which there is not strong demand might accept students with these grades, but typical UK university entrance requirements are closer to three passes at grade C or above for academic courses in established universities. Very popular courses will often require much higher grades. For example, medical schools in the UK often require grades of AAA and the highly selective universities such as Cambridge and Oxford ask for at least AAA for all courses. Good A Level grades can also be a key to admission for all the world's major Anglophone universities. University course credit and advanced standing is often available in countries such as the USA and Canada, where entrance to university takes place after 12 years of

education. Good grades in carefully chosen A Level subjects can result in up to one full year of credit.

An 'A/AS Level Recognition Handbook' can be downloaded from the CIE website at <http://www.cie.org.uk/programmes-and-qualifications/recognition-and-acceptance/>.

It provides the most up-to-date information on universities that recognise Cambridge International AS and A Levels and the AICE Diploma for entry on to undergraduate programmes. It also includes details of advanced credit offered.

The subject content of each of the CIE A Level syllabuses has been subdivided into two parts: the AS syllabus content which is expected to be covered in the first half of the course, and part two of the syllabus commonly referred to as 'A2'. This flexible approach enables students to choose between three main options:

- Take all A Level components in the same examination session at the end of a course of study, usually at the end of the second year
- Follow a staged assessment to an A Level by taking the AS qualification in one examination session, and the A2 assessment in a subsequent session
- Take the AS qualification only – either at the end of a one-year or two-year course.

NOTE: The A2 examination cannot be taken as a standalone qualification.

The General Certificate of Education Advanced Subsidiary Level, or AS Level, represents the first half of an A Level course but may also be taken as a freestanding qualification. AS Levels are accepted in all UK universities and carry half the weighting of an A Level. For example, students may be admitted with suitable grades in two A Levels and two AS Levels (in place of 3 A Levels). Details of the tariff operated by the UK Universities and Colleges Admission Service are given on the [UCAS website](#). Institutions outside the UK which offer credit for A Levels can be expected to offer half that amount of credit for AS Levels.

Pass grades for AS Level are A to E. Assessment may include coursework, final examination, practical and oral tests. Students wishing to go on to university will typically follow four to five AS courses in their first year of study and then continue with three subjects to the full A Level in their second year, perhaps alongside another AS Level course.

○ Choosing your A-level Subjects

The following is advice from UK universities:

Universities look for students who not only have good grades, but grades in the right subjects for the course they want to apply for. If you already know what you want to study at university, you should think about choosing subjects which give you the best possible preparation for your chosen degree course. If you're not sure what you want to study at university yet, it's important to choose subjects which will leave as many options open as possible.

Many courses at university build on knowledge and skills which students gain while still at school. For this reason, some university courses require you to have studied a particular subject already. For example, for general engineering degrees, mathematics and physics are typically essential A-level qualifications.

Some advanced level subjects are more frequently required for entry to degree courses than others. We call these subjects 'facilitating' because choosing them at advanced level leaves open a wide range of options for university study. These facilitating subjects are:

- Biology
- Chemistry
- English Literature
- Geography
- History
- Physics
- Modern and Classical Languages
- Maths and Further Maths

If you don't know what you want to study at university then it's a really good rule of thumb that taking two facilitating subjects will keep a wide range of degree courses open to you.

Further information can be found on the UCAS website and also on the following websites:

<http://university.which.co.uk/>

http://university.which.co.uk/a-level-explorer?utm_source=pressrelease&utm_medium=email&utm_campaign=alevelchoices

We plan to offer as broad a range of subjects as we can from September 2016. There will be the possibility of sitting/re-sitting IGCSE subjects or AS subjects. AS Level programmes will be taught with examinations after one year of study. A2 components will be taught from September 2017 enabling students to obtain the full A Level qualification by examination in June 2018. It will be possible for some students to take a range of AS Level courses over the two years with the intention of obtaining the AICE diploma, perhaps to fulfil home country requirements for a broad baccalaureate/graduation programme. However, the primary intention will be to provide students with the opportunity to study 3 A Levels, alongside a number of AS Levels, so as to have a top-class final school standing, backed by an endorsement from the ancient, prestigious and world-famous University of Cambridge.

On the following pages are outlines of AS and A Level courses that we **may** offer dependent upon demand (generally at least a minimum of three students required per subject) from September 2016. Further information, including past examination papers and the full subject syllabuses, can be viewed on the CIE website <http://www.cambridgeinternational.org/>

1. Art and Design (AS and A Level)



Entry Qualifications

It is recommended that students who are beginning this course should have previously completed a Cambridge O Level, or Cambridge IGCSE course in Art, or Art and Design, or the equivalent.

What Will I Study?

At the Cambridge International School, the students will be guided in the following areas: Painting and Related Media, Textiles, Printmaking. However, there are many other areas of study which are acceptable that the student may choose to follow. The intention is for candidates to follow a field of study in research, development and realization, at some depth.

How Will I study?

Students taking the Advanced Level Art and Design course are required to take three components. Our centre follows a staged assessment route, where the Advanced Subsidiary (AS) qualification is taken during the first year of study and the final parts of the assessment taken the following year:

Year 12 - AS Level

Component 1: Coursework
100 marks

This involves one coursework project from one area of study. Students focus on research, development and realization in depth and must submit one coursework piece and up to four sheets of supporting work.

The work is externally assessed by Cambridge

There are two parts to the coursework:

- a portfolio and
- a final outcome

The work is externally assessed by Cambridge

50% of the AS Level

25% of the A Level

Component 2: Externally Set Assignment

100 marks

Candidates choose one starting point to develop into a personal response.

There are two parts to the assignment:

- supporting studies, created during the preparation period and
- a final outcome, produced during a supervised test of 15 hours' total duration.

The work is externally assessed by Cambridge

50% of the AS Level

25% of the A Level

Year 13 – Final component for A Level

Component 3: Personal Investigation

100 marks (weighted to 200 marks)

Candidates investigate a theme, idea, concept or process that is personal to them.

There are two parts to the investigation:

- practical work and
- written analysis (1000-1500 words)

The practical work and written analysis must form an integrated submission.

The work is externally assessed by Cambridge

50% of the A Level

Where Next?

An Art and Design qualification at this level will enable the student to apply for a further course at college or university. However, the skills developed on the course are sufficient for the student to pursue their own course of personal study for individual, or commercial purposes. Also, many careers (not only Art related) benefit from these creative skills.

2. Biology (AS and A Level)



Entry Qualifications

Normal minimum requirements: IGCSE Co-ordinated Science BB, or a grade B in IGCSE Biology. Also, normally required are grade Cs in IGCSE English Language and Mathematics.

What Will I Study?

This syllabus is designed to give flexibility to candidates and to place emphasis on the understanding and application of scientific concepts and principles as well as on factual material, whilst still giving a thorough introduction to the study of Biology.

Curriculum areas

AS and A Level candidates study:

- Cell Structure
- Biological Molecules
- Enzymes
- Cell Membranes and Transport
- Transport in plants
- Transport in mammals
- Gas Exchange and Smoking
- Infectious Disease
- Immunity

A Level candidates also study:

- Energy and Respiration
- Photosynthesis
- Homeostasis
- Control and co-ordination
- Inherited Change
- Selection and Evolution

A Level students will also study and be assessed on all the following applications of biology:

- Biodiversity, classification and conservation
- Genetic Technology

Aims of the course:

1. Provide, through well-designed studies of experimental and practical biological science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.

In particular, it should enable them to:

- become confident citizens in a technological world, with an informed interest in scientific matters;
 - recognise the usefulness (and limitations) of scientific method, and its application in other subjects and in everyday life;
 - be suitably prepared for studies in biological sciences beyond Cambridge International A Level, in further or higher education, and for professional courses.
2. Develop abilities and skills that:
 - are relevant to the study and practice of biological science;
 - are useful in everyday life;
 - encourage effective, efficient and safe practice;
 - encourage effective communication using universal scientific conventions.
 3. Develop attitudes relevant to biological science, such as:
 - concern for accuracy and precision
 - objectivity
 - integrity
 - skills of enquiry
 - initiative, inventiveness
 4. Stimulate interest in, and care for, the local and global environment, and help students to understand the need for conservation.
 5. Make students aware:
 - that scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together, and that biological science overcomes national boundaries;
 - that the study and practice of biology are affected and limited by social, economic, technological, ethical and cultural factors;
 - that the application of biological science may be both helpful and harmful to the individual, the community and the environment;
 - of the importance of using IT for communication, as an aid to experiments and as a tool for interpreting experimental and theoretical results.
 6. Stimulate students and give them a lasting interest in biology, so that they find studying biology to be enjoyable and satisfying.

How Will I Study?

Classwork is designed to build up students' understanding of the concepts and ideas in each area. This is achieved through practical work, problem-solving or question/answering and other activities. Written homework is set regularly to aid understanding.

Where Next?

Biology is an increasingly important subject in the modern world. You can study Biology because you find living things fascinating for their own sake, or because you need it to gain entry into the applied biological professions, medicine, dentistry, pharmacy, optics, or conservation. The biotechnology-based industries, which include pharmaceutical and chemical companies, are also major employers of biological scientists.

3. Chemistry (AS and A Level)



Entry Qualifications

Normal minimum requirements: IGCSE Co-ordinated Science BB, or a grade B in IGCSE Chemistry. Also, normally required are grade Cs in IGCSE English Language and Mathematics. Higher grades than these minimums are usually necessary for success.

What Will I Study?

Chemistry is all around us. As a fundamental science it has a profound effect on our planet and is involved in nearly every facet of everyday life. Almost every new technological change and important discovery has its foundation in chemistry. Everyday materials such as drugs, dyes, plastics, agrochemicals, detergents, paints and cosmetics are the result of chemical research. The study of Chemistry provides a stimulating insight into the material world in which we live. The AS/A Level course builds upon the knowledge of Chemistry introduced during IGCSE and aims to stimulate interest and enjoyment of the subject. Scientific principles and concepts are explored both practically and theoretically.

Curriculum areas

Physical chemistry

- Atoms, molecules and stoichiometry
- Atomic structure
- Chemical bonding
- States of matter
- Chemical energetics
- Electrochemistry ➤ Equilibria
- Reaction kinetics

Inorganic chemistry

- The Periodic Table: chemical periodicity
- Group II
- Group VII
- An introduction to the chemistry of transition elements
- Nitrogen and sulphur

Organic chemistry

- Introductory topics
- Hydrocarbons
- Halogen derivatives
- Hydroxy compounds
- Carbonyl compounds
- Carboxylic acids and derivatives
- Nitrogen compounds

- Polymerisation

Application of chemistry (A level only)

- The chemistry of life
- Applications of analytical chemistry
- Design and materials

Aims of the course

1. To provide, through well designed studies of experimental and practical chemistry, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to:
 - become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
 - recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
 - be suitably prepared for employment and/or further studies beyond A level.
2. To develop abilities and skills that
 - are relevant to the study and practice of science;
 - are useful in everyday life;
 - encourage efficient and safe practice;
 - encourage the presentation of information and ideas appropriate for different audiences and purposes;
 - develop self-motivation and the ability to work in a sustained fashion.
3. Develop attitudes relevant to science such as:
 - accuracy and precision;
4. Develop attitudes relevant to science such as:
 - Accuracy & precision
 - Objectivity
 - Integrity
 - Enquiry
 - Initiative
 - Insight
5. Stimulate interest in, and care for, the environment. ➤ Promote an awareness that:
 - The study and practice of science are co-operative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations;
 - The applications of science may be both beneficial and detrimental to the individual, the community and the environment
 - The use of information technology is important for communication, as an aid to experiments and as a tool for interpretation of experimental and theoretical results.

6. Stimulate students, create and sustain their interest in Chemistry, and understand its relevance to society.

How Will I Study?

Classwork is designed to build up students' understanding of the concepts and ideas in each area. This is achieved through practical work, problem-solving or question/answering and other activities. Written homework is set regularly to aid understanding.

Where Next?

The course provides an excellent basis for further study and employment. A Level Chemistry students' progress to a wide range of degree courses ranging from Law to Engineering. A level Chemistry is essential for entry to degree courses in Medicine, Dentistry, Pharmacy, Veterinary Science, Biochemistry and Chemical Engineering in addition to Chemistry itself. Many opportunities exist within the chemical and pharmaceutical industries for employment in research and development, quality assurance, marketing, sales and management. Many chemists are employed in service industries such as forensic science, pollution control, environmental health and hospital laboratories. A degree in Chemistry can gain access to other employment such as accountancy, management and teaching.

4. Computer Science (AS and A Level)



Entry Qualifications

Normal minimum requirements: Candidates beginning this course are not expected to have studied computer science or ICT previously. Normally required are grade Cs in IGCSE English Language and Mathematics. However, candidates should be able to show a facility for logical thinking whether through a top grade in Mathematics or success in some other relevant field of study or activity.

What Will I Study?

Computers are now widely used in all aspects of government, business, industry, education, leisure and the home. In this increasingly technological age, a study of Computer Studies, and particularly how computers are used in the solution of a variety of problems, is valuable to the student. In Computing you will cover a wide range of topics including how to program a computer, how the computer works and communicates with other computers, how computer systems are developed and applied to specific functions, how to develop a database etc. There is little mathematics involved but a logical approach to problem solving is required. Databases are covered in depth, but other IT skills, such as using a word processor or spread sheet are only briefly covered.

Curriculum areas

- Theory Fundamentals (AS 50%, A Level 25%)
- Fundamental Problem-solving and Programming (AS 50%, A Level 25%)
- Advanced Theory (A Level 25%)
- Further Problem-solving and Programming Skills (A Level 25%).

Aims of the course

The aims of Cambridge International Computer Science, whether leading to an AS or A Level qualification are:

- to develop computational thinking
- to develop an understanding of the main principles of solving problems using computers
- to develop an understanding that every computer system is made up of subsystems, which in turn consist of further subsystems
- to develop an understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communications and people
- to acquire the skills necessary to apply this understanding to develop computer-based solutions to problems.

Computer science is the study of the foundational principles and practices of computation and computational thinking and their application in the design and development of computer systems.

This syllabus aims to encourage the development of computational thinking, that is thinking about what can be computed and how it can be by the use of abstraction and decomposition. It includes consideration of the data required. Learning computational thinking involves learning to program, by writing computer code, because this is the means by which computational thinking is expressed.

How Will I Study?

Lessons will consist of a mixture of theory work and practical work on computers. You will be given work to do outside lessons for both theory and practical work, completion of which is essential for your progress, so you must be able to work independently.

Where Next?

Cambridge International A Level Computer Science provides a suitable foundation for the study of computer science or related courses in higher education. Equally, it is suitable for candidates intending to pursue careers or further study in computer science or ICT, or as part of a course of general education. The methodical, logic and analytical base of the subject will train students well for studies or careers wherever these attributes are sought. Careers in the computing field are many and varied. Students can continue onto a course in higher education such as Computer Science, Software Engineering or Systems Engineering or follow a combined degree course with other subjects such as Mathematics, Economics or Financial Management. Students also have a wide choice of careers they could follow e.g. banking, finance, law, the electronic industries or the specialist computer field.

5. English Language (AS and A Level)



Entry Qualifications

Normal minimum requirements: Grade B in IGCSE English Language.

What Will I Study?

The course aims to stimulate an enjoyment and appreciation of language and provide an understanding of the role it plays in our lives. It would suit students who have an open and enquiring mind, a curiosity about language in all its varieties and who also enjoy producing their own creative writing.

Curriculum areas

- Passages – analyse a passage and comment on the use of language; directed writing relating to a passage
- Writing – imaginative writing; writing for an audience
- Text Analysis – write for a specific audience/purpose; analyse features of written and spoken language (A Level only)
- Language Topics - spoken language; English as a global language; language acquisition by children and teenagers. (A Level only).

Aims of the course to encourage:

- A critical and informed response to writing texts in a range of forms, styles and contexts.
- The interdependent skills of reading, analysis and communication research.
- Effective, creative, accurate and appropriate communication.
- A firm foundation for further study of language and linguistics.

How Will I Study?

Students will be encouraged to adopt a 'hands on' approach and will be expected to observe and ask questions about the language that surrounds us all and is central to our lives. For example:

- How it is used by themselves and others
- The effect of different usages on individuals and groups.

Students will be expected to make use of these observations in assignments and class discussions. Topic areas will address some of the debates surrounding language and its uses and students will be encouraged to apply this knowledge to their own lives.

Where Next?

The qualification is an excellent course for those seeking a broad-based education across both the arts and sciences. The appreciation and understanding of language is central to further studies of any nature as well as in many careers such as journalism and the law.

6. English Literature (AS and A Level)

Entry Qualifications

Normal minimum requirements: Grade Bs in IGCSE English Language and English Literature.

What Will I Study?

A wide range of literature in English is studied during this course, covering different forms (poetry, prose and drama), countries, cultures and periods in time.

Curriculum areas

- Poetry, Prose and Drama – based on a selection of set texts
- Shakespeare and other pre 20th Century Texts

Aims of the course to develop:

- A critical and informed response to writing in a range of forms, styles and contexts.
- The interdependent skills of reading, analysis and communication.
- Effective and appropriate communication.
- Appreciation of and informed personal response to literature in English.
- Wider reading and an understanding of how it may contribute to personal development.

How Will I Study?

The approach taken will be a mixture of those outlined above for the English Language and the English Literature AS Level courses.

Where Next?

The qualification is an excellent course for those seeking a broad-based education across both the arts and sciences. The appreciation and understanding of language is central to further studies of any nature as well as in many careers such as journalism and the law. The analytical skills developed in the study of literature are also of wide application and support many career directions.

7. Further Mathematics (A Level only)



Entry Qualifications

Normal minimum requirements: IGCSE Mathematics grade A*. Also, normally required is a grade C in IGCSE English Language.

What Will I Study?

Further Mathematics is an A Level subject that can only be taken in combination with A Level Mathematics by students who are likely to achieve at least an A grade in A Level Maths.

The course covers a wide range of mathematical areas at a level that would often only be found in university courses. Students are required to study Pure Mathematics, Mechanics and Statistics at an advanced level.

Pure Mathematics:

Polynomials and rational functions, Polar Coordinates, Summation of Series, Mathematical Induction, Differentiation and Integration, Differential Equations, Complex Numbers, Vectors, Matrices and Linear Spaces.

Mechanics:

Momentum and Impulse, Circular Motion, Equilibrium of a rigid body under coplanar forces, Rotation of a rigid body, Simple harmonic motion.

Statistics:

Further work on Distributions, Inference using normal and t-distributions, χ^2 tests, **Bivariate data**.

The aims of the course are to enable students to

- develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment;
- develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject;
- acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying;
- develop the ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem;
- use mathematics as a means of communication with emphasis on the use of clear expression;
- acquire the mathematical background necessary for further study in this or related subjects;
- offer students an overall view of Mathematics, where disciplines are interlinked.

How Will I Study?

In most lessons mathematical theories and techniques are introduced in a formal style. Mathematics is however a practical subject and great emphasis is placed on allowing students to develop their problem-solving skills.

Where Next?

Further Mathematics A Level is of particular value to those thinking of higher education based on the sciences, especially Physics or Engineering or increasingly Economics, Accounting, Financial Studies related courses. It provides a sound basis for almost any career or to progress to further study of Mathematics.

8. Geography (AS and A Level)



Entry Qualifications

Normal minimum requirements: IGCSE Geography grade B. Also, normally required are grade Cs in IGCSE English Language and Mathematics.

What Will I Study?

Geography is a subject which bridges the sciences and humanities. It occupies a pivotal position in the understanding and interpretation of social, economic, political and environmental conditions and change. Geography develops a student's ability to collect, collate, analyse and interpret both qualitative and quantitative data as well as developing their awareness and understanding of contemporary human and environmental issues.

Equity and sustainability are key concepts in modern geography and at AS/A Level students will have the opportunity to explore these concepts using a range of relevant and important issues such as environmental management, global interdependence, urban planning and hazard management. The course will also bridge other important subjects such as Business Studies, Economics, Politics, Environmental Management and many more!

In year 12 students will study Core Human & Core Physical topics. This provides the platform upon which students can really apply their knowledge to more challenging topics in year 13.

Year 12 (AS Level)

- Hydrology & Fluvial Geomorphology (Rivers)
- Atmospheric Systems (Weather & Climate)
- Rocks & Weathering
- Population Dynamics
- Migration
- Settlement Dynamics

For the AS Level students will be assessed by taking two exams each lasting 1hr 30 mins each. These exams will be on separate days (usually a week apart).

Year 13 (A Level)

In year 13 students will have an option as to which topics they would like to study. They should choose two topics related to human issues and two topics that are related to physical geography. Similar to year 12 there will be two exams of 1hr 30 mins each, however these will happen on the same day.

Physical Options

- Natural Hazards
- Tropical Environments
- Desert (Arid & Semi-Arid) Environments
- Coastal Environments

Human Options

- Economic Transition & Development
- Global Interdependence
- Environmental Management
- Production, Location & Change

Aims of the Course

Geography as a subject discipline; its content; role and value. The aims are to:

- Develop awareness of the relevance of geographical analysis to understanding and solving contemporary human and environmental problems;
- Introduce students to the main components of Physical and Human Geography and the interrelationships between these components;
- Encourage an understanding of the principal processes operating at different scales within Physical and Human Geography;
- Develop a sense of relative location, including an appreciation of the complexity and variety of natural and human environments;
- Demonstrate and explain the causes and effects of change over space and time on the natural and human environment;
- Demonstrate the importance of scale in understanding Physical and Human Geography;
- make students aware of the problems of explanation (including data collection and processing) in Physical and Human Geography, and to give them an appreciation of the nature, value, limitations and importance of different approaches to analysis and explanation in Geography.

Skills and Attitudes. The aims of the course are to:

- Increase knowledge of, and ability to use and apply, appropriate skills and techniques relevant to the greater understanding and interpretation of facts and relationships in Physical and Human Geography;
- Encourage a concern for accuracy and objectivity in collecting, recording, processing, analysing, interpreting and reporting data in a spatial context;
- Develop the ability to handle and evaluate different types and sources of information;
- Develop the skill to think logically, and to present an ordered and coherent argument in a variety of ways;

- Promote an appreciation of the need for understanding, respect and co-operation in conserving the environment and improving the quality of life at both a global scale and within the context of different cultural settings.

How Will I Study?

Classroom participation & interaction is a crucial requirement for geography students, where healthy debates & discussions really help explore a geographical issue. A wide variety of other teaching and learning methods are employed encompassing teacher directed, group work, student presentations, role-play simulations, flexible computer-based learning and fieldwork. Slide, video, audio, computer, map, satellite image and photographic resources are all employed in this visually stimulating subject. Regular assignments involving the practice of structured questions, practical application and essay writing are employed.

Where Next?

Geography is not career specific, but it is highly regarded as a subject which produces aware students who have been trained in the use of many key skills. It is said that, '**Geography students hold the key to the world's problems**' by being a living, breathing subject that is constantly adapting itself to change. It is dynamic and relevant with so much global importance. Consequently, many universities and future employers place Geography students in high regard.

Students who continue their geographic education post-18 will often decide to specialise at some stage in one aspect of the subject and eventually seek employment in that particular specialism. Otherwise geography provides an excellent broad and sound base from which to launch into an extremely varied range of careers. Some universities will even class Geography as a Science subject.

9. German Language (AS and A Level)



Available Courses: German Language and Literature A Level, German Language AS Level. Examinations are only available in November and so the courses will be examined quarter way through the second year. Potentially for a student staying on and doing a 'Year 14', A Level could be examined in the November at the start of their 3rd year of post-IGCSE study.

Entry Qualifications

Normal minimum requirements: IGCSE German grade B. Also, normally required is a grade C in IGCSE English Language.

What Will I Study?

The course aims to develop a high level of competence in understanding, speaking and writing German and a deeper knowledge of the culture and civilisation of Germany. German makes you think. It encourages you to question your own ideas, put your point of view across and offers you the chance to understand German society and culture more deeply.

Curriculum areas

AS German Language and A Level candidates' study:

- Speaking (30% for AS Language, 20% for A Level)
- Reading and Writing (50% for AS Language, 35% for A Level)
- Essay (20% for AS Language, 15% for A Level) A Level German Literature candidates' study:
- Texts (30% for A Level).

Aims of the course

- To develop the ability to understand the German language from a variety of registers.
- To enable the student to communicate confidently and clearly in the German language.
- To form a sound base of skills, language and attitudes required for further study, work and leisure.
- To develop insights into the culture and civilisation of countries where German is spoken, including the study of literary texts where appropriate (this does not apply to AS Level language).
- To encourage positive attitudes to language learning and a sympathetic approach to other cultures and civilisations.
- To further intellectual and personal development by promoting learning and social skills.

How Will I Study?

Lessons cover a variety of activities including individual and group work. Students are expected to use as much German as possible in and outside the classroom, make use of the Library facilities for private study (books, video, CD ROM, cassettes, magazines etc.) and keep a general interest in all aspects of the language and culture.

Where Next?

German can help you gain access to jobs in business, banking/finance, journalism, law, public relations, travel and the Civil Service. Students of German A Levels can go and study a wide range of subjects in higher education and can, if they wish, choose to specialise in German. The knowledge of a European language enhances your confidence and social skills and increases your career prospects in the European and global market-place.

10. History (AS and A Level)



Entry Qualifications

Normal minimum requirements: IGCSE History grade B. Also, normally required is a grade C in IGCSE English Language.

What Will I Study?

History can be taken as a one year AS Level course, or a two-year programme of study leading to an A Level award.

This course will take you through the period of international relations and ideological conflict that has shaped our European Continent. In AS students will begin the course with the causation of the outbreak of the First World War. We will examine the key factors that contributed to the world descending into a conflict that would change the dynamics of the world forever. This will launch us into the study of the development of the League of Nations, and its successes and failures in dealing with political, economic and military disputes in the aftermath of The Great War, leading to its collapse in the face of the growing tide of extremism in the 1930s. We will also examine the fierce complexities of the Russian Empire and the subsequent Revolutions that led to the downfall of the Tsars and the rise of the Bolsheviks under Lenin that would change the course of history. Furthermore, in A2, the origins and development of the Holocaust will be studied with the second-half of the course dedicated to a comparison between the regimes of Hitler and Stalin.

Curriculum areas

AS Level

Component 1 – Document question (source-based) – the school will choose one area from:

- Liberalism and Nationalism in Italy and Germany, 1848–1871
- The Origins of the American Civil War, 1846–1861
- The Search for International Peace and Security, 1919–1945 (chosen topic)

Component 2 – Outline study – the school will choose one area from:

- Modern Europe, 1789–1917 (chosen topic)
- The History of the USA, 1840–1941
- International Relations, 1871–1945

A Level students will also study the following:

Component 3 – Interpretations question (source-based) – the school will choose one area from:

- The Causes and Impact of British Imperialism, c. 1850–1939
 - The Holocaust (chosen topic)
 - The Origins and Development of the Cold War, 1941–1950
- Component 4 – Depth study – the school will choose one area from:

- Europe of the Dictators, 1918–1941 (chosen topic)
- The History of the USA, 1945–1990
- International History, 1945–1991
- African History, 1945–1991
- Southeast Asian History, 1945–1990s

The syllabus aims to develop:

- An interest in the past and an appreciation of the struggle of human endeavour.
- A greater knowledge and understanding of historical periods and themes.
- A greater awareness of historical concepts and political ideologies and how they framed the conflict within the 19th and 20th centuries.
- The ability to critically evaluate and analyse a wide-range of interpretations and perspectives.
- An exploration of the variety of approaches to different aspects of history and historiography.
- A glimpse into the understanding of ‘schools of history’ and how history can be manufactured, altered and changed in order to justify the decisions of future societies.
- The ability to think independently and make informed judgements on issues using a wide range of evidence.

How Will I Study?

We use a wide variety of methods of study: whole-class teaching, group and individual research and presentation of topics, essay writing, document work and the use of video material and computer programs. Class discussion is valuable in developing analytical skills and therefore there will be a high expectation of wider reading and individual research in order to further these discussions.

Where Next?

AS/A Level History is highly regarded as preparation for careers which demand a capacity for rapid mastery of large bodies of complex material, strong analytical skills and the ability to express ideas clearly and concisely. Its wide range of subject matter, covering political, economic, social, religious, intellectual and cultural issues gives the good history student a firm base from which to apply for the majority of degree courses, including those of a vocational nature such as Law, Business, Accountancy and International Relations. History is frequently cited as being amongst the top of highly regarded disciplines.

11. Mathematics (AS and A Level)



Entry Qualifications

Normal minimum requirements: IGCSE Mathematics grade B. Also, normally required is a grade C in IGCSE English Language. Higher grades than these minimums are usually necessary for success.

What Will I Study?

Mathematics is a highly regarded A level which complements Science subjects and offers a broad balance to Arts based students. You will need to be quick and confident in algebraic techniques and good at mental arithmetic. You will also need to be able to grasp new and unfamiliar concepts quickly, and to be analytical, thorough, organised and self-motivated. Mathematics is a subject which deals with abstract structures. Some of these arise in scientific theories while others are familiar from everyday life; a few are studied by mathematicians purely for their intrinsic beauty.

Mathematics can be studied for one year for an AS Level qualification or two years for an A Level qualification. The study of Mathematics at post-16 level is divided into 3 main areas:

Pure Mathematics:

Unit P1: Quadratics, Functions, Co-ordinate Geometry, Circular Measure, Trigonometry, Vectors, Series, Differentiation, Integration; Unit P2: Algebra, Logarithmic and Exponential Functions, Trigonometry, Differentiation, Integration, Numerical Solution of Equations; Unit P3: Algebra, Logarithmic and Exponential Functions, Trigonometry, Differentiation, Integration, Numerical Solution of Equations, Vectors, Differential Equations, Complex Numbers

Mechanics:

Unit M1: Forces and Equilibrium, Kinematics of Motion in a Straight Line, Newton's Laws of Motion, Energy, Work & Power; Unit M2: Motion of a Projectile, Equilibrium of a Rigid Body, Uniform Motion in a Circle, Hooke's Law, Linear Motion under a Variable Force

Probability and Statistics:

Unit S1: Representation of Data, Permutations and Combinations, Probability, Discrete Random Variables, The Normal Distribution; Unit S2: The Poisson Distribution, Linear Combinations of Random Variables, Continuous Random Variables, Sampling and Estimation, Hypothesis Tests.

The course is divided into units – there are three units of Pure Maths, and two units of each of Mechanics, and Probability and Statistics. For AS Level, a unit in Pure Maths (P1) and one more in Pure Maths (P2) or Mechanics (M1) or Probability and Statistics (S1) have to be taken. For

the full A Level, two units in Pure Maths (P1 and P3) have to be taken along with two further units chosen from Mechanics (M1 or M1 and M2) or Probability and Statistics (S1 or S1 and S2).

The aims of the course

To enable students to:

- develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment;
- develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject;
- acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying;
- develop the ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem;
- use mathematics as a means of communication with emphasis on the use of clear expression;
- acquire the mathematical background necessary for further study in this or related subjects.

How Will I Study?

In most lessons mathematical theories and techniques are introduced in a formal style. Mathematics is however a practical subject, and great emphasis is placed on allowing students to develop their problem-solving skills.

Where Next?

Mathematics A Level is of particular value to those thinking of higher education based on the sciences, especially Physics or Engineering. It is also considered as an excellent background for courses in Applied Sciences, Computing, Electronics, Medicine, Dentistry, Psychology, Social Sciences, Geography, Accountancy, Finance, Economics, Business Studies and many more. It is a sound basis for almost any career or to progress to further study of Mathematics.

12. Physics (AS and A Level)

Entry Qualifications

Normal minimum requirements: IGCSE Co-ordinated Science BB or a grade B in IGCSE Physics. Also, normally required are grade Cs in IGCSE English Language and Mathematics. Higher grades than these minimums are usually necessary for success. We advise that students wishing to do AS or A Level Physics do it alongside AS or A Level Mathematics.

What Will I Study?

A level Physics deals with the laws and mechanics of the real world to a very high and in-depth level. The subject is split into discrete subject areas: Mechanics, where students learn how to accurately measure data, describe the motion of objects and the physical laws that they obey; Waves which looks at the motion and rules of waves and the uses to which we put them, such as radio and communications; Electricity and magnetism which deals with electricity generation and uses. The more abstract world of nuclear and quantum physics is also dealt with, trying to explain how and why the universe acts as it does.

Curriculum areas

- General physics
- Newtonian mechanics
- Matter
- Oscillations and waves
- Electricity and magnetism
- Modern physics
- Gathering and communicating information (A Level only).

Aims of the course

- To provide, through well designed studies of experimental and practical science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to
 - become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
 - recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
 - be suitably prepared for studies beyond A Level in Physics, in Engineering or in Physics-dependent vocational courses.
- To develop abilities and skills that
 - are relevant to the study and practice of science;
 - are useful in everyday life;
 - encourage efficient and safe practice;

- encourage effective communication.
- To develop attitudes relevant to science such as:
 - concern for accuracy and precision;
 - objectivity;
 - integrity;
 - the skills of enquiry;
 - initiative;
 - inventiveness.
- To stimulate interest in, and care for, the environment in relation to the environmental impact of Physics and its applications.
- To promote an awareness that:
 - the study and practice of Physics are co-operative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations;
 - that the implications of Physics may be both beneficial and detrimental to the individual, the community and the environment;
 - of the importance of the use of IT for communication, as an aid to experiments and as a tool for the interpretation and experimental and theoretical results.
- Stimulate students and create a sustained interest in Physics so that the study of the subject is enjoyable and satisfying.

How Will I Study?

Much of the learning on all our courses is done through class practicals and demonstration practicals. On the whole, students are taught as a group but there will be times when students will be expected to work on their own or in small groups, reporting back their findings to the rest of the group. We have a large range of resources including computers which are used as teaching aids and to interface with experimental work.

Where Next?

Career opportunities for students studying Physics together with other subjects are very good. The demands of industry for people with qualifications in these subjects are increasing while the number with such qualifications is decreasing. A degree in Physics opens the way to a wide variety of careers. Employers in unrelated fields also hold it in high regard because of its intellectual rigour.

13. Psychology (AS and A Level)



Entry Qualifications

Normal minimum requirements: Grade C in IGCSE English Language.

What Will I Study?

Cambridge International AS and A Level Psychology is accepted by universities and employers as proof of knowledge and ability. This syllabus aims to encourage an interest in and appreciation of psychology through an exploration of the ways in which psychology is conducted. This exploration includes: • a review of a number of important research studies • an opportunity to look at the ways in which psychology has been applied. The syllabus uses a wide variety of assessment techniques that will allow students to show what they know, understand and are able to do. The emphasis is on the development of psychological skills as well as the learning of psychological knowledge.

Curriculum areas

- Research methods
- Biological approach
- Cognitive approach
- Learning approach
- Social approach

A Level candidates are also required to study how psychology is applied in two of the following areas, to be chosen by the school:

- Psychology and abnormality
- Psychology of consumer behaviour
- Psychology and health
- Psychology and organisation

Aims of the course

- to provide an introduction to psychological concepts, theories, research findings and applications;
- to create an understanding of the range and limitations of psychological theory and practice;
- to encourage candidates to explore and understand the relationship between psychological findings and everyday life;
- to develop skills of analysis, interpretation, application and evaluation;
- to promote an appreciation and understanding of individual, social and cultural diversity;

- to develop an understanding of ethical issues in psychology, including the moral and ethical implications of psychological research;
- to explore and understand the relationship between psychological findings and social, cultural and contemporary issues;
- to study psychological principles, perspectives and applications ➤ to improve communication skills.

How Will I Study?

A variety of teaching methods is used, including teacher-led lessons, group work, presentation of seminars by students, use of videos and computers, timed essays in class, and practical coursework sessions.

Where Next?

There are many careers in which a knowledge of Psychology would be useful, especially those involved in dealing with people, for instance; nursing, teaching, social work, probation work, careers advice or personnel management. To become a psychologist, you will need a good Psychology degree, followed by postgraduate training for clinical, educational, prison or occupational psychology.

14. Spanish Language (AS & A Level)



Available Courses

Spanish Language and Literature A Level (9719);
Spanish Language AS Level (8685);
Spanish Literature AS Level (8673).

Entry Qualifications

Normal minimum requirements: IGCSE Spanish grade B. Also, normally required is a grade C in IGCSE English Language.

What Will I Study?

The course aims to develop a high level of competence in understanding, speaking and writing Spanish and a deeper knowledge of the culture and civilisation of Spain. Spanish makes you think. It encourages you to question your own ideas, put your point of view across and offers you the chance to understand Spanish society and culture more deeply.

AS Spanish Language and A Level candidates study:

- Speaking (30% for AS Language, 20% for A Level)
- Reading and Writing (50% for AS Language, 35% for A Level)
- Essay (20% for AS Language, 15% for A Level) AS Spanish Literature and A Level candidates study:
- Texts (100% for AS Literature, 30% for A Level).

Aims of the course

- To develop the ability to understand the Spanish language from a variety of registers.
- To enable the student to communicate confidently and clearly in the Spanish language.
- To form a sound base of skills, language and attitudes required for further study, work and leisure.
- To develop insights into the culture and civilisation of countries where Spanish is spoken, including the study of literary texts where appropriate (this does not apply to AS Level language).
- To encourage positive attitudes to language learning and a sympathetic approach to other cultures and civilisations.
- To further intellectual and personal development by promoting learning and social skills.

How Will I Study?

Lessons cover a variety of activities including individual and group work. Students are expected to use as much Spanish as possible in and outside the classroom, make use of the Library facilities for private study (books, video, CD ROM, cassettes, magazines etc.) and keep a general interest in all aspects of the language and culture.

Where Next?

Spanish can help you gain access to jobs in business, banking/finance, journalism, law, public relations, travel and the Civil Service. Students of Spanish A Levels can go and study a wide range of subjects in higher education and can, if they wish, choose to specialise in Spanish. The knowledge of a European language enhances your confidence and social skills and increases your career prospects in the European and global market-place. Spanish being a world language offers opportunities on other continents as well as in Europe.