

Hill House Sixth

A Level Options



HILL HOUSE
SIXTH



Some Useful Information

Choosing what to study at A Level should not be taken lightly. Students need to choose subjects that they will enjoy, have a particular interest in and which fit in with their longer term future plans. Many A Level courses require previous knowledge of, or qualifications in, particular subjects—please refer to individual entries for this information. In addition, many university degrees and careers require specific A Level qualifications—we have provided some common examples of these on the back page.

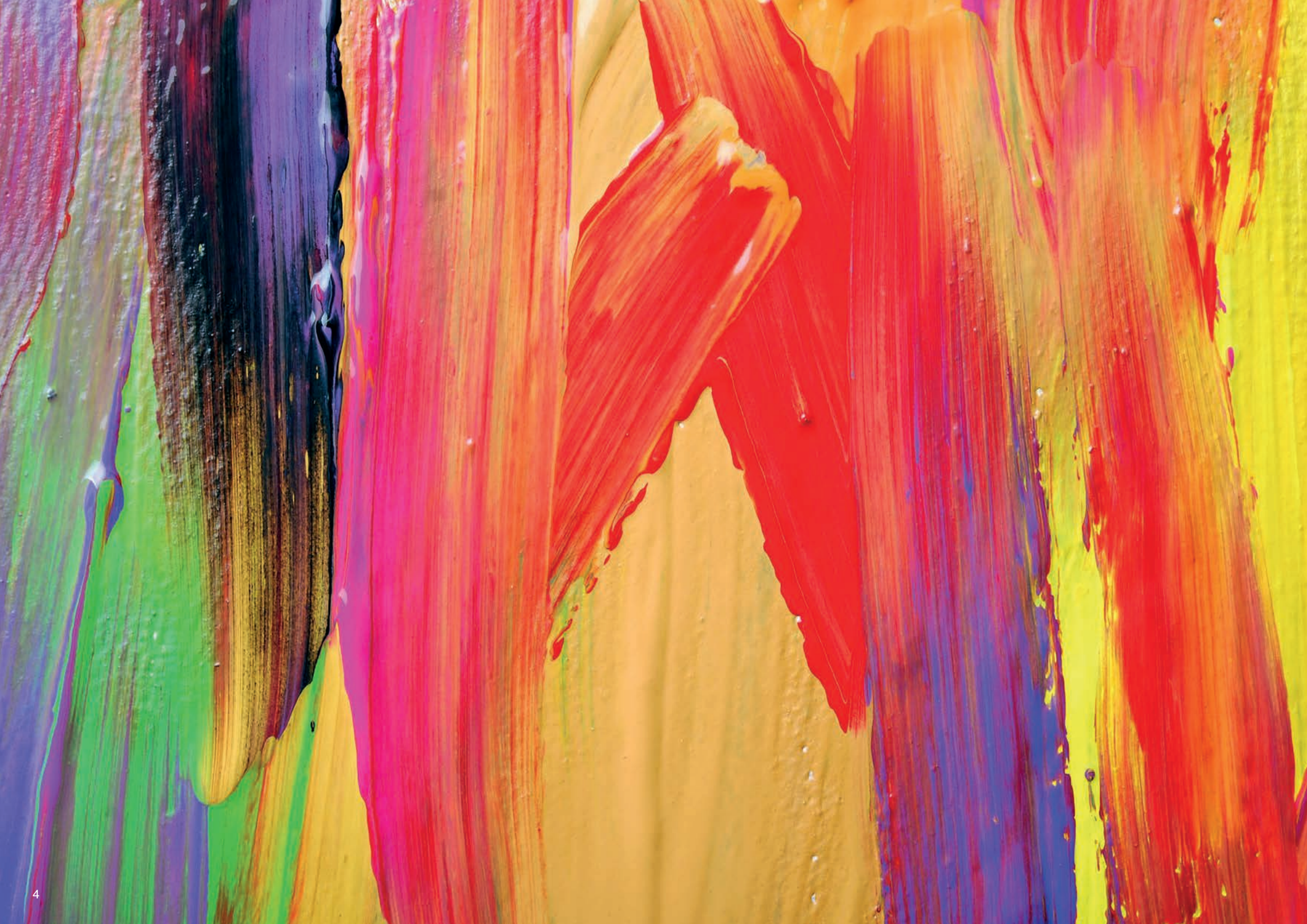
If you have any questions at all about these issues, then please do not hesitate to contact the school and we will be glad to offer advice.

How many subjects will you study?

A Levels have been reformed to become linear qualifications with significantly longer examinations. Our expectation is that most students will study three full A Levels along with an Extended Project Qualification. Some students may study four full A Levels. However our flexible and personal approach to post 16 study means that we can tailor programmes to meet individual needs wherever possible.

Entry requirements

Generally, it will be expected that students have a minimum of seven GCSE passes or equivalent at grade 9-5 including English and Mathematics to join the Sixth Form. In addition, a student will need at least a GCSE grade 6 or above in any subject they wish to study at A Level. There are some exceptions to these entry requirements – please refer to individual subject entries.



Art and Design

Why Art and Design?

The A Level course in Art forms a natural progression from the various skills acquired at GCSE level. This course is designed to encourage candidates to:

- Develop their interest in, and enjoyment of, the study of art and design, fostering its value in lifelong learning.
- Develop personal responses to ideas, observations, experiences, environments and cultures.
- Work from their strengths and interests within the remit of the course specification.

Are there any recommendations for entry to the course?

Students must have achieved a grade 6 or above at GCSE and be motivated and dedicated to work hard to produce artwork of a high standard on a consistent basis at home and at school.

What will I study?

The specification offered is 'Art, Craft and Design' and areas of study include; painting and drawing and mixed media, including collage and assemblage.

Lower Sixth

Candidates choose one endorsement for study throughout L6 and U6. During L6 students are introduced to a variety of experiences employing a range of media, processes and techniques appropriate to the chosen area of study.

Upper Sixth

During the U6, candidates are required to build upon the knowledge, understanding and skills gained in the previous year with greater depth of study. Two assessments are undertaken:

Component 1 – Personal Investigation.

Component 2 – Externally Set Assignment.

How will I be assessed?

Component 1 – Personal Investigation

60% of A Level (No time limit. 96 marks, set and marked by the centre and moderated by AQA.)

Component 2 – Externally Set Assignment

40% of A Level.(Supervised time 15 hours. 96 marks. Work produced will be marked by the centre and moderated by AQA.)

What can study of this subject lead to?

Studying Art and Design can lead to many exciting career paths. These include Fine Art Painter, Graphic Designer, Advertising, Interior Design, Fashion Design/ Illustration, Computer Graphics/Animation and Fine Art Illustration, Teacher or Lecturer, Theatre Set Designer, Gallery or Museum Management, Illustrator for magazines, websites or title screens for major motion pictures.

Is there anything else I should know?

The department operates a totally 'open door' policy for Sixth Form art students, which means that they can use the art studio facilities at any time of the school week, even when other classes are timetabled.

The course is enhanced by various opportunities to enter art competitions, undertake gallery visits and contribute towards regular displays in the school itself.

Why Biology?

Biology is one of the most popular A Level subjects in the country, attracting students studying a wide range of other subjects. Many of these students enjoy the subject so much they eventually choose a biologically related degree course. Others go onto careers in law, computing, accounting or teaching. So, whatever field you will eventually work in, you will find Biology a very rewarding and challenging course which will develop many of the skills essential for a successful career.

Why Chemistry?

If you enjoyed Chemistry at GCSE, you will love this A level course. In two years you will get an in-depth knowledge of this fascinating subject, preparing you for further education or giving you the credentials to enhance your job options straightaway. Chemists have greatly improved the quality of life for the majority of people. You will find out that chemists are real innovators, designing solutions to the problems that affect modern life.



Biology

Are there any recommendations for entry to the course?

You will need to obtain a minimum of grade 6-6 in GCSE Core and Additional Science or a grade 6 or higher in GCSE Biology. Students who take Biology often also study a wide range of subjects, including Psychology, PE, Chemistry and Physics.

What will I study?

Biology involves the study of a wide range of exciting topics, ranging from molecular biology to the study of ecosystems and from micro-organisms to mammoths.

Lower Sixth

The course stimulates the enthusiasm of students from the start. It emphasizes the way in which biologists work and the contributions of Biology to society. Topics studied during the year include Biological Molecules, Cells and Genetics.

Upper Sixth

During U6, the course continues the approach taken in the previous year. There are additional sections on Advanced Genetics, Populations and Gene Expression.

How will I be assessed?

There are three examination papers covering the theoretical and practical aspects of the course and an additional practical endorsement.

What can study of this subject lead to?

Biology is a great choice of subject for people who want a career in health and clinical professions, such as medicine, dentistry, veterinary science, physiotherapy, pharmacy, optometry, nursing, zoology, marine biology or forensic science.

Is there anything else I should know?

The Biology A Level course helps students develop a number of skills: how to collect data and evaluate it; how to investigate facts and use deduction; how to put over your point of view effectively; how to take responsibility for your own learning.

Chemistry

Are there any recommendations for entry to the course?

Students with a wide range of interests enjoy the Chemistry course. Whether you want a job in medicine or industry, Chemistry is the solid platform upon which careers are built. Students who take Chemistry often also study from a wide range of subjects, including Psychology, Mathematics, Biology and Physics. You will need to obtain a minimum of a grade 7 in GCSE Chemistry or 7-7 in Core and Additional Science.

What will I study?

In the Lower Sixth students are given a sound practical grounding in Chemistry learning a range of techniques. Topics studied during this year include Energy and Foundation Organic Chemistry.

In the Upper Sixth the knowledge gained in the Lower Sixth is extended and built upon with topics including Transition Elements and Analysis.

How will I be assessed?

There are three written examination papers covering the theoretical and practical aspects of the course and an additional practical endorsement.

What can study of this subject lead to?

Chemistry is a great choice of subject for people who want a career in health and the clinical professions, such as medicine, nursing, biochemistry, dentistry or forensic science. It will also equip you for a career in industry, for example in the petrochemical or pharmaceutical industries.

Is there anything else I should know?

The Chemistry A Level course helps students develop a number of skills: how to assemble data and assess it; how to investigate facts and use deduction; how to put over your point of view fluently; how to work as a team to achieve results.

**Why Classical Civilisation?**

This subject offers you the chance to engage with past cultures, literature, religion and ideas. You will improve your analytical skills and develop your written communication during a course which is compelling and wide ranging. Sources studied include the literature of the Romans and Greeks in English, and their archeological remains. It is an intellectually challenging subject and highly regarded by both universities and employers.

Why Latin?

Latin is a fascinating subject and includes the subject of language, culture, literature and history. It is also a rigorous and very well regarded subject at A-Level, helping students to develop the skills of precision, analysis and communication. These skills are sought after in many forms of employment, and of course at universities.

Classics

Classical Civilisation - Are there any recommendations for entry to this course?

You do not need to have studied this subject at GCSE to take it at A-Level. However, you need to have an interest in history, literature, art and archaeology. A desire to understand cultures and societies, which can be very different from our own, is also important.

Latin - Are there any recommendations for entry to this course?

You should have achieved at least a grade 6 at GCSE in Latin. A desire to increase your knowledge and understanding of the language and how it works will enhance your enjoyment of the subject.

Classical Civilisation - What will I study?

You will learn about 'The World of the Hero' with an in-depth study of Homer's Odyssey and Virgil's Aeneid. Followed by 'Culture of the Arts' looking at Greek ideas about foreigners and finally you will study 'Beliefs and Ideas' looking at Gods and the rise of philosophical thought in the Greek world.

Latin - What will I study?

You will study Latin grammar and vocabulary further and apply these to unseen translations of both prose and verse, increasing your confidence in understanding complex Latin sentences. You will make a detailed study of a prose author like Cicero and a verse author like Virgil. In both cases you will analyse their literary techniques

How will I be assessed?

For both courses all assessment is by final examination.

Classical Civilisation - What can study of this subject lead to?

This subject is extremely interesting and diverse. It encourages comparison with the modern world and our own particular concerns, meaning that though we study ancient cultures, the discussions and ideas are also very immediate. During your study of Classical Civilisation, you will develop many transferrable skills, which could lead you to any number of possible careers; social work, accounting, business and teaching to name a few. The skills of communication, analysis and creative thinking are essential to many career paths and particularly to entry into university courses.

Latin - What can study of this subject lead to?

Latin is an extremely rigorous A-Level subject and therefore is considered by many institutions and employers as intellectually demanding. Many students of this subject go on to careers in business, accounting, foreign service, medicine, dentistry, teaching and lecturing to name a few.

Classical Civilisation - Is there anything else I should know?

Classical Civilisation requires an enjoyment of reading and discussion of ideas.

Latin - Is there anything else I should know?

Latin requires an enjoyment of history, literature and language. It is important to be able to develop ideas through discussion and written work, but also to love the more robust and consistent approach that intensive language study requires.

To support your learning in both subjects, a trip to Italy or Greece runs on a two yearly cycle.



Why A Level Computer Science?

This specification gives a general grounding in computing, including an understanding of computer systems, the principles of programming, and the solving of problems.

Why Drama and Theatre Studies?

Theatre Studies offers students an opportunity to develop a wide range of personal and academic skills that would make ideal preparation for the world of work and university. The course involves acting, improvisation, movement, assessing and analysing script, realising the performance potential within a text as well as understanding theatre history and its relationship to contemporary practice. The study of theory is mainly through practice; indeed there are practical performance opportunities throughout the course.

Computer Science

Are there any recommendations for entry to this course?

Students must normally have achieved a grade 7 or above in GCSE Mathematics. Studying A level Mathematics would also be preferable.

What will I study?

Computer Science is a practical subject where students can apply the academic principles learned in the classroom to real-world systems. It is an intensely creative subject that combines invention and excitement, that can look at the natural world through a digital prism. Computer Science will value computational thinking, helping students to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence.

Topics covered: Computer fundamentals, programming techniques and logical methods, advanced computer theory and a computing project which involves designing solutions to problems, writing maintainable programs and testing and running a solution.

How will I be assessed?

There are two written examinations each of 2 hours 30 minutes and an independent programming project worth 20% of the total A Level.

What can study of this subject lead to?

This specification is excellent preparation for those students intending to pursue computing studies at degree level, or for anyone considering any kind of career in computing or computer science.

Is there anything else I should know?

The new specification will introduce revised content to include greater emphasis on programming and mathematical content plus the removal of ICT based topics.

Drama and Theatre Studies

GCSE passes at grade 6 in English and English Literature are preferred. To do this course you should have an interest in, and enthusiasm for plays, theatre and performance, but you do not need to have studied Drama previously or had any formal training in the subject.

What will I study ?

Component 1 - Devising

Assessed on:

- Application of a chosen practitioner
- A written portfolio, documenting the devising process
- A formal performance (internally assessed; externally moderated)
- 80 marks
- 40% of A Level

Component 2 – Text in Performance

Assessed on:

- Group performance of one key extract
- A monologue from one key extract
- A formal performance (externally assessed)
- 60 marks
- 20% of A Level

Component 3 – Theatre makers in practice

Externally assessed on:

- Section A: live theatre evaluation (extended response to live theatre)
- Section B: page to stage – realising a performance text (extended response to unseen extract)
- Section C: interpreting a performance text (extended response to seen text but unseen named section)
- 80 marks
- 40% of A Level

What can study of this subject lead to?

Drama and Theatre Studies A Level provides a wide range of skills that complement most other areas of study, as well as benefiting those who are seeking employment. There is great emphasis on team working, building students' confidence and interpersonal skills. You may find work in a wide range of professions related to the performing arts such as an actor, performer, playwright, director, community arts worker, teacher, journalist, costume designer, prop maker, stage manager, theatre technician, arts administrator.

This course provides a suitable qualification for students who may wish to study Drama at a higher level, or who wish to follow a wide range of courses including media, performing arts, or education.

Why Business Studies?

Business Studies is an excellent subject to complement a wide range of other A Level subjects and can broaden your A Level combination. The subject studies the workings of business and adopts a management focus to assist those who may wish to move into management in the future.

Why Economics?

Whether you have studied Economics before or simply have an interest in it now, this could be the course for you. Economics provides an excellent complement to a wide range of other A Level subjects and can broaden your A Level combination. The subject provides a very thorough understanding of the workings of the national and international economy which is highly valued by academics and professionals alike.

Business Studies

Are there any recommendations for entry to the course?

You can take Business Studies even if you have not studied it at GCSE, however if you have studied it before a grade 6 at GCSE would indicate you have the potential to succeed.

What will I study?

We study business and the management of business and economic context in which business operates. We also consider qualitative and quantitative influences on decisions including a range of theories and techniques such as investment appraisal and critical path analysis.

Areas to be studied include: managers and leaders, decision making, marketing, financial performance, human resources, strategic positioning and strategic change.

How will I be assessed?

Assessment is via three two hour examinations.

What can the study of this subject lead to?

This subject can lead to a range of study and career paths. Students may go on to study Business further or specialise in Marketing, Human Resources Management or Accounting qualifications.

Economics

Are there any recommendations for entry to this course?

You may study this subject even if you have not studied Economics or a related subject in the past. Grade 6 or above in GCSE Mathematics would indicate you have the potential to succeed.

What will I study?

You will study economic theory and learn to apply it to current economic problems and issues. Have you ever wondered why prices constantly rise? Have you ever wondered why we are unable to give everyone a job? What is meant by taxation? What is the interest rate? All will be revealed. You will also study international markets and the economies of different countries.

The syllabus is broadly split into microeconomics and macroeconomics.

Microeconomics topics include supply and demand, monopolies and market failures.

Macroeconomics will introduce you to the ideas of governmental economic policies.

How will I be assessed?

There will be three written examination papers covering all aspects of the course.

What can the study of this subject lead to?

This subject can lead to a range of study and career paths. Students may go on to study an Economics related discipline, studying Economics itself or a combination of Economics with another discipline like Politics, Law or Finance. The career paths that can develop from Economics are very considerable, and may include Management, Politics, Finance, Stockbroking, Law and Advertising.

English Literature

Are there any recommendations for entry to the course?

Candidates will need to have attained 6 grades in English Literature and English Language at GCSE in order to take this option. Students will benefit from having studied other subjects in the humanities.

What will I study?

There are three units in the A Level course:

1. Aspects of Comedy for which you will study three texts. The following are indicative texts for this unit: Twelfth Night, Shakespeare; The Importance of Being Earnest, Wilde; Small Island, Levy
2. Elements of Political and Social Protest Writing for which you will study three texts. The following are indicative texts for this unit: Songs of Innocence and Experience, Blake; The Handmaid's Tale, Atwood; Kite Runner, Hosseini
3. Theory and Independence for which you will write two essays responding to the Critical Anthology. Indicative texts for this unit are Ariel, Plath; Things Fall Apart, Achebe

How will I be assessed?

The course is assessed via two examination papers worth 80% of the total and two coursework essays worth 20%.

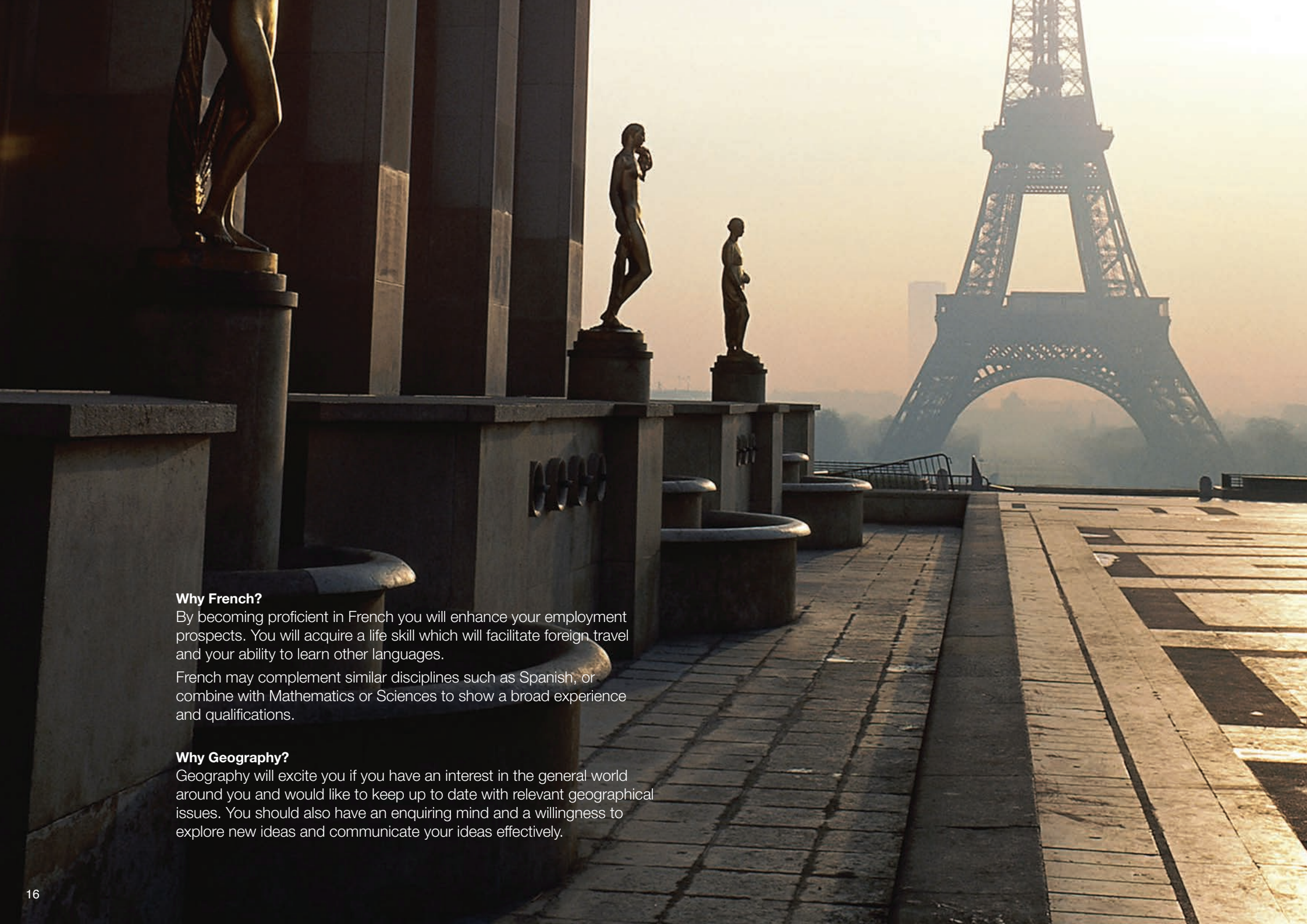
What can English Literature lead to?

The study of English Literature is particularly suited to those considering fields such as journalism, publishing or teaching. The close reading skills and linguistic analysis involved in English Literature also make it excellent preparation for careers such as law. The skills of critical analysis and literary theory involved in the course make it an excellent preparation for the study of this subject at university, and complement many other A Level subjects such as History, Philosophy of Religion and Art.

Why English Literature?

"Literature...is a way of making human life bearable." – Kurt Vonnegut.

From Shakespeare to Saramago, Milton to Margaret Atwood, from John Donne to James Joyce, writers have used fiction, poetry and drama to explore the complexity and depth of the human experience. Investigating love, conflict, family, death, race, gender, politics and more, writers use language at its most profound and beautiful to help us think more deeply about ourselves and others. If you enjoy literature in all forms, if you want to explore the drama of what makes us human, and if you enjoy language, English Literature is a fantastic choice at A Level.



Why French?

By becoming proficient in French you will enhance your employment prospects. You will acquire a life skill which will facilitate foreign travel and your ability to learn other languages.

French may complement similar disciplines such as Spanish, or combine with Mathematics or Sciences to show a broad experience and qualifications.

Why Geography?

Geography will excite you if you have an interest in the general world around you and would like to keep up to date with relevant geographical issues. You should also have an enquiring mind and a willingness to explore new ideas and communicate your ideas effectively.

French

Are there any recommendations for entry to the course?

You should have achieved at least a grade 6 at GCSE in French. You should also be keen to develop the knowledge and communication skills you acquired at GCSE.

A desire to gain an insight into another culture and society is important.

What will I study?

In L6, you will continue to improve the four skills of Listening, Speaking, Reading and Writing. By developing your knowledge of appropriate words, phrases and grammar, you will be able to discuss the following topics: Media, Popular Culture, and Healthy Living/Lifestyle, Family/Relationships.

In U6, you will build on the skills acquired the previous year and study the following topics: Environment, The Multicultural Society, Contemporary Issues, and Culture. Within the Culture topic you may study a period of 20th century history in France; a French author such as Maupassant, Camus or Sartre; a poet or dramatist such as Molière or Racine; a French director such as Jean-Luc Goddard, Mathieu Kassovitz or Louis Malle; an architect, musician or painter such as Monet or Renoir.

How will I be assessed?

You are assessed via listening examinations (where you have control of what you hear), reading and writing examinations and an oral examination on each year's work.

What can study of this subject lead to?

Almost anything! Some students will continue to study French at University, possibly combining it with another language or subject. French combines well with subjects such as Law, Business Studies, Marketing, Accountancy and Banking.

Employers value highly a proficiency in French. Indeed, unemployment for Languages graduates is low.

Is there anything else I should know?

Authentic materials from newspapers, magazines, DVDs and the internet will be used for research into the chosen topics. There will also be an opportunity to do work experience in a French-speaking country.

Geography

Are there any recommendations for entry to the course?

Those students who have studied GCSE Geography will find that the material and the skills they have learned will prove to be a valuable foundation for further studies at this level.

What will I study?

Over the two years you will study a range of physical and human geography topics.

Physical Geography topics studied include:

Tectonic Processes and Hazards
Landscape Systems, Processes and Change
Coastal Landscapes and Change
The Water Cycle and Water Insecurity
The Carbon Cycle and Energy Security

Human Geography topics studied include:

Globalisation and Superpowers
Shaping Places
Regenerating Places
Global Development and Connections
Migration, Identity and Sovereignty

How will I be assessed?

Paper 1 = 30% of A Level (2¼ hour exam)

Paper 2 = 30% of A Level (2¼ hour exam)

Paper 3 = 20% of A Level (2¼ hour exam)

Independent Investigation - 20% of A Level
(internally assessed report of 3000-4000 words)

What can study of this subject lead to?

Geography is an interesting and stimulating subject. It involves transferrable skills including collecting, analysing and interpreting data and communicating your findings. These skills are in great demand and are recognized by employers and universities as being of great value. A Level Geography will provide you with a qualification and background for entry to HE. Geography, with a wide range of practical/personal skills, also makes a desirable qualification for entry into a number of professions e.g. management, teaching and business.

Is there anything else I should know?

Geography is an interactive subject and will involve field trips to supplement the knowledge you gain. You will have a number of opportunities and experiences which will prepare you for university and employment.



Why Government and Politics?

If you have an interest in news and current affairs and like to think that you could make a difference in the world, then this is probably the course for you. If you enjoy debate and have strong opinions about UK and world affairs, or want to understand how governments reach and implement decisions which shape the world for millions of people, then politics will be right up your Downing Street!

Why History?

History has rightly been described as an 'argument without end'. It offers no fixed answers but some insight into what it is to be a human being and real training in logical thought, data-handling and the attractive expression of ideas.

Government and Politics

Are there any recommendations for entry to this course?

GCSE passes at grade 6 in English and a humanity would be preferred.

What will I study?

You will look very closely at all aspects of both British and American politics, both internally and the role they play in world politics. The course consists of extensive studies of British and American party politics; their histories, beliefs, successes and failures. You will also look at the political and legal environment that governments work within; how politics is influenced by the public, media and business.

There are in-depth studies of Britain's vote to leave the EU, the importance of the Health and Education systems etc.

Component 1 – UK Politics

Written examination: 2 hours = 33 $\frac{1}{3}$ % of the qualification. 84 marks.

Content overview

1. Political Participation, students will study: democracy and participation, political parties, electoral systems, voting behaviour and the media.
2. Core Political Ideas, students will study: conservatism, liberalism, socialism.

Component 2 – UK Government

Written examination: 2 hours = 33 $\frac{1}{3}$ % of the qualification. 84 marks.

Content overview

1. UK Government, students will study: the constitution, Parliament, Prime Minister and executive, relationships between the branches.
2. Optional Political Ideas, students will study feminism.

Component 3 – Comparative Politics

Written examination: 2 hours = 33 $\frac{1}{3}$ % of the qualification. 84 marks.

Content overview

For USA (3A) students will study: the US Constitution and federalism, US congress, US presidency, US Supreme Court, democracy and participation, civil rights.

How will I be assessed?

There is no externally assessed coursework for Government and Politics. There are three Examinations each accounting for 33 $\frac{1}{3}$ % of the final mark.

What can study of this subject lead to?

Politics can lead on to a wide range of Higher Education courses and as well as taking both single and joint honours Politics degrees, you will also find students who have taken this A Level studying for more general degrees in, for example, Humanities or Social Sciences. Political scientists often pursue careers in law, journalism, media, business, social work, teaching and even politics!

History

Are there any recommendations for entry to this course?

Students who study this subject will normally achieve a grade 6 or above in GCSE History.

What will I study?

In this exciting specification you will become closely familiar with a range of historical events which have helped to shape the modern world as it exists today. You will look at the contexts and reasons for decisions made in the past and how those influence decisions of the future. This subject will help you to think critically and to argue and reason, using a range of source documents upon which you will base your evidence.

Units studied will be:

Unit 1 – Stuart Britain and the Crisis of Monarchy, 1603–1702

Unit 2 – Revolution and dictatorship: Russia, 1917–1953

Unit 3 – NEA: US Civil Rights 1863-1963

How will I be assessed?

Unit 1 – 2hr 30 mins – 40% of A Level

Unit 2 – 2hr 30 mins – 40% of A Level

Unit 3 – Is an independently researched enquiry requiring you to analyse and evaluate historical interpretations – 20% of A Level

What can study of this subject lead to?

History is very highly regarded by universities as an entry subject. Many students go on to study it further, but it also forms a basis for courses in such areas as Law, Journalism, Finance, Business, Management and Museum/Archive work.

History graduates are highly employable because of their skills in analysis, argument and reasoning.

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$$x a \bar{z}^2 + (y^n + x^n)$$

$$(a^n + b^n) \Leftrightarrow (a+b)^n$$

Why Mathematics?

The main reason for studying Mathematics to an advanced level is that it is interesting and enjoyable. People like its challenge, its clarity, and the fact that you know when you are right.

The solution of a problem has an excitement and a satisfaction.

"The mathematician does not study Pure Mathematics because it is useful, he studies it because he delights in it, and he delights in it because it is beautiful."

Why Further Mathematics?

Sitting alongside the A Level Mathematics course, this course is intended for people who love Mathematics and want to distinguish themselves as the most able mathematicians.

$$\frac{d}{dx} \frac{1}{x}$$

$$X = \frac{(a+b)^n}{(a-b)^n}$$

Mathematics

Are there any recommendations for entry to the course?

Students must normally have achieved a grade 7 or above in GCSE Mathematics. It is important that students have covered the full range of topics required at Higher Tier GCSE.

What will I study?

We will follow a linear course. Mathematics has compulsory 'pure' elements and applied elements.

Outline

Pure 1 & 2 – Proof; Algebra and functions; coordinate geometry in the (x, y) plane; sequences and series; trigonometry, differentiation; integration, numerical methods, vectors.

Statistics – Statistical sampling; data presentation and interpretation; probability; statistical distributions; statistical hypothesis testing.

Mechanics – Quantities and units in mechanics; kinematics; forces and Newton's laws; movements.

How will I be assessed?

There are three units and each unit examination lasts 2 hours and is worth 30¹/₃% of the course.

What can study of this subject lead to?

A mathematical background is essential for many courses in Higher Education. Careers in Finance, Economics, Science, Architecture and Medicine will all benefit from studying Mathematics at A Level.

Further Mathematics

Are there any recommendations for entry to the course?

Students should have achieved a grade 8 in GCSE Mathematics. You must also be taking A Level Mathematics.

What will I study?

We will follow a linear course. Mathematics has compulsory 'pure' elements and applied elements.

L6 Outline

Further Pure 1 & 2 – Proof; complex numbers; matrices; further algebra and functions; further calculus; further vectors; polar coordinates; hyperbolic functions; differential equations.

Further Statistics – Linear regression; statistical distributions (discrete); statistical distributions (continuous); correlation; hypothesis testing; chi squared tests.

Further Mechanics – Momentum and impulse; collisions; centres of mass; work and energy; elastic strings and springs.

Further Decision – Algorithms and graph theory; Algorithms on graphs; Algorithms on graphs II; critical path analysis; linear programming.

How will I be assessed?


There are 4 units and each unit examination lasts 1 hour 30 minutes and is worth 25% of the course.

What can study of this subject lead to?

Further Mathematics will help with university courses that have a significant element of Mathematics study. Some prestigious university courses will only accept students with Further Mathematics qualifications.

Is there anything else I should know?

Students who are especially keen on Mathematics will really enjoy Further Mathematics. It is a challenging qualification, which both extends and deepens students' knowledge and understanding beyond the standard of A Level Mathematics.



Why Philosophy of Religion and Ethics?

There are so many important questions and decisions we must make in life. There are so many different ways of understanding the world and our place within it. For thousands of years people have tried to make sense of it all. What is life all about? Why is there evil in the world? Is euthanasia wrong? When is it right to go to war?

If you value discussion and debate, if you are fascinated by life's mysteries, then this is the course for you.

Philosophy

Are there any recommendations for entry to the course?

Candidates need to obtain a grade 6 or above in GCSE English to take this option. A GCSE in Religious Studies puts you at a slight advantage but is not a requirement.

What will I study?

Unit 1. Epistemology

The meaning and definition of knowledge – is it ‘justified true belief’ (the tripartite view) or is there a better alternative (Zabzebski)?

Perception as a source of knowledge: Can we trust our senses? Different theories including Direct Realism, Indirect Realism (Locke and Russell) and Idealism (Berkeley)

Reason as a source of knowledge: How do we gain knowledge? Innatism (Plato), Rationalism (Descartes and Leibniz) and Empiricism (Hume)

The limits of knowledge: Can we know anything with certainty? Local and global scepticism and different response including Descartes three waves of doubt.

Unit 2. Moral Philosophy

Normative ethical theories: The meaning of good, bad, right, wrong within three ethical approaches (Utilitarianism, Kantian deontological ethics and Aristotelian virtue ethics).

Similarities and differences across the three approaches

Applied ethics (stealing, simulated killing, eating animals and telling lies)

Meta-ethics (the origins of moral principles and the distinction between cognitivism and non-cognitivism about ethical language)

Unit 3. Metaphysics of God

The nature and concept of ‘God’ including arguments for the incoherence of God.

Arguments relating to the existence of God (Ontological arguments, Teleological arguments, Cosmological arguments, the Problem of Evil)

Religious language

Unit 4. Metaphysics of mind

What do we mean by ‘mind’? What are qualia and what is intentionality?

Dualist theories: Is mind different to matter? Substance Dualism and Property Dualism.

Physicalist Theories: Is mind is a feature of matter? Physicalism, Mind-Brain Type Identity Theory and Eliminative Materialism.

Functionalism: Are mental states expressions of functional roles?

How will I be assessed?

The course is assessed through written examination using both short answers and longer essays.

What can study of this subject lead to?

Studying philosophy can make a significant contribution to any job that requires you to think clearly and rigorously. The city firms, banks, management consultancies, chartered accountants - are enthusiastic about people who have studied philosophy because students of philosophy have developed the skill of thinking clearly. Philosophy students also go into law, politics, medicine and the civil service. Journalism and advertising are also a logical career path.

Why Psychology?

Do you wonder why people behave in the way they do and what makes us behave in ways which are different to others? For example, why do some people get angry quite quickly while others are able to remain calm? Why do some people commit serious crimes like murder? Have you ever wondered about love and what makes us attracted to some people and not others? Do you have an enquiring mind, want to find answers, and enjoy discussion and debate? Then Psychology, a fascinating study of the human mind and behaviour, is for you.

Why Physics?

From the smallest imaginable particle to the great clusters of galaxies, Physics helps us understand how our universe works. A Level Physics is accepted as an entry to a wide range of courses ranging from Engineering and Veterinary Science to Accountancy and Law. Whatever you want to be, Physics can help you achieve it!

Psychology

Are there any recommendations for entry to the course?

GCSE passes at grade 6 in English, Mathematics and Science are preferred.

What will I study?

In the first year topics include memory, attachment, social influence and psychopathology. Students will explore how memory works, whether a deprived childhood influences later relationships and how can depression, phobias and OCD be explained and treated.

In the Upper Sixth, students specialise in three main areas. Firstly, the psychology of relationships, looking at why are we attracted to some people and not to others, why some relationships break down. Secondly, schizophrenia, asking what it is, what causes it and whether it can be cured. Finally, forensic psychology. This final topic looks into explanations of criminal behaviour and offender profiling. Examining what factors come together to create a truly dangerous individual such as a serial killer.

How will I be assessed?

All units are assessed via three two hour examinations.

What can study of this subject lead to?

Many students who study A Level Psychology go on to university to study at degree level. Psychology is a popular subject and universities usually specify high grades at A Level as entrance requirements.

Psychology is useful in several careers such as counselling, teaching, sport, nursing, management, social work and the police. There are also specialist careers which can be followed in Psychology. For these you will need a degree in Psychology and further training. These include Criminal Psychology, Clinical Psychology and Sports Psychology.

Physics

Are there any recommendations for entry to the course?

You will need to obtain a minimum of grade 7-7 in GCSE Core and Additional Science or a grade 7 or higher in GCSE Physics. You should preferably have a grade 7 in Higher Tier Mathematics GCSE.

What will I study?

The course will develop essential knowledge and understanding in Physics and the applications of Physics. It will provide an understanding of the link between theory and experiment and an appreciation of how Physics has developed and is used in present day society.

Lower Sixth

Topics studied include: Particles, radiation, quantum phenomena and electricity, mechanics, materials and waves, scalars and vectors, coplanar forces, turning effects, dynamics, Newton's laws, energy, interference and diffraction.

Upper Sixth

Topics studied include: Fields and further mechanics, momentum, simple harmonic motion, gravitation, capacitance, nuclear and thermal physics and astrophysics.

Practical skills are essential to Physics and are taught throughout the course.

How will I be assessed?

There are three written examination papers covering the theoretical and practical content of the course with an additional practical endorsement.

What can study of this subject lead to?

The career opportunities available are as vast as the subject itself. This is because employers see a Physics qualification as an indication of someone who will immediately be an asset to the organisation. Physicists have logical and numerate minds, enjoy a challenge and like solving problems.

Why Physical Education?

A Level Physical Education is for anyone who has a wide-ranging interest in Sport. The sports industry is one of the fastest growing industries in Britain today. Consumer spending currently stands at over 11 billion pounds per year, and creates more GNP than Agriculture!

Why Spanish?

By becoming proficient in Spanish you will enhance your employment prospects. You will acquire a life skill which will facilitate foreign travel and your ability to learn other languages. In addition, unemployment for Languages graduates is low.



Physical Education

Are there any recommendations for entry to the course?

Students do not need to have studied GCSE Physical Education though this would be an advantage. You should have achieved a grade 6 or above in GCSE Science and play at least one sport to a high club level.

What will I study?

This course will cover: applied anatomy and physiology, exercise physiology, biomechanic , skill acquisition, sports psychology, sport and society, contemporary issues in physical activity and sport, practical performance, evaluation and analysis of performance for improvement.

This specification contains a 5% quantitative skills requirement. The use of quantitative skills is spread across the components. Furthermore, this specification allows for practical examples from physical activities and sports to show how theory can be applied and to reinforce understanding.

How will I be assessed?

70% Theory

30% Practical and written coursework

2 x 2 hour exams

What can study of this subject lead to?

A Level Physical Education is a highly regarded course for entry into Higher Education and amongst employers. In Higher Education it is useful for teaching, Sports Psychology and Physiotherapy. It can also lead to a job in Sports Journalism and a variety of other sport related industries. In addition, the Emergency Services and Armed Forces are always thankful for students who have successfully completed the course.

Spanish

Are there any recommendations for entry to the course?

You should have achieved at least a grade 6 at GCSE in Spanish. You should also be keen to develop the knowledge and communication skills you acquired at GCSE. A desire to gain an insight into another culture and society is important.

What will I study?

In the L6, you will continue to improve the four skills of Listening, Speaking, Reading and Writing. By developing your knowledge of appropriate words, phrases and grammar, you will be able to discuss the following topics: Media; Popular Culture; Healthy living/ Lifestyle; Family/ Relationships.

In the U6, you will build on the skills acquired in the L6 and study the following topics: Environment; The Multicultural Society; Contemporary Issues; Culture.

Within the Culture topic you may study a period of 20th century history in Spain, including the Spanish Civil War; a Spanish-speaking author, such as Garcia Marquez or Isabel Allende; a Spanish-speaking poet or dramatist, such as Lorca or Cervantes; a Spanish director, such as Almodovar or Guillermo del Toro; or a Spanish-speaking architect, musician or painter, such as Gaudi, Juanes or Picasso.

How will I be assessed?

L6

Unit 1 – Listening (where you have control of what you hear), Reading and Writing. A 2 hour examination. 35% of A Level.

Unit 2 – Oral examination which covers the topics of Unit 1. 35 minutes (including 20 minutes preparation time). 15% of A Level.

U6

Unit 3 – Listening Reading and Writing. 2 hours 30 minutes. 35% of A Level.

Unit 4 – Oral examination. 35 minutes (which includes 20 minutes preparation time). 15% of A Level.

What can study of this subject lead to?

Almost anything! Some students will continue to study Spanish at university, possibly combining it with another language or subject. Spanish combines well with subjects such as Law, Business Studies, Marketing, Accountancy and Banking. Employers value highly a proficiency in Spanish.

Is there anything else I should know?

It can be a good idea to combine Spanish with similar disciplines such as English or French, or combine with Mathematics or Sciences to show a broad range of skills. Authentic Spanish material will be used for research into topic work, and you will be given the opportunity of work experience in a Spanish-speaking country.

Appendix: Some example entry requirements for University courses

Degree Subject

Accountancy
Agriculture
Ancient History
Architecture
Biochemistry
Biological Sciences (including: Botany, Zoology, microbiology)
Business/Management Studies
Chemistry
Chemical Engineering
Computer Science
Economics
Engineering (including: Aeronautical, Civil, Electrical, Electronic, Mechanical)
English
Environmental Science
Food Science /Food Technology
French
Geography
History
Law
Materials Science
Mathematics
Medicine/Dentistry
Metallurgy
Music
Pharmacy
Philosophy
Physics
Physiology
Politics
Psychology
Social Studies
Spanish
Statistics
Veterinary Science

Typical A Level Requirements

Mathematics often required
Chemistry and Biology
History may be preferred
Some courses require Mathematics and Physics
Chemistry, Biology or Mathematics often required or preferred
Biology and Chemistry often required, Mathematics sometimes preferred
Mathematics often required. Business Studies and Economics sometimes preferred
Chemistry with Mathematics or Physics preferred
Chemistry required. Physics and Mathematics often required
Mathematics, often with another science or Further Mathematics often required
Mathematics often required
Mathematics and Physics preferred
English Literature, English Language or English Language & Literature required
Sciences in a number of varying combinations required
Chemistry required and two other sciences preferred
French required. Second foreign Language and/or English sometimes preferred
Geography normally required
History required. Second humanity or English sometimes preferred
No specific subjects required but History and/or English can provide good evidence of analytical and essay writing skills
Mathematics and Physics required
Mathematics required. Further Maths and/or Physics sometimes preferred
Chemistry required. Biology sometimes required
Mathematics, Physics and Chemistry often required
Music mostly required
Chemistry required, Biology and/or Mathematics and/or Physics sometimes required
No specific subjects required but evidence of analytical and essay writing sometimes preferred
Physics and Mathematics required
Chemistry required. Biology, Physics and/or Mathematics sometimes required
No specific subjects required but Politics and/or History and /or English would provide good evidence of analytical and essay writing skills
One or two science subjects often preferred. Psychology sometimes preferred
No subjects required. Sociology sometimes provides evidence of interest
Spanish required by most. Second foreign language and/or English sometimes preferred
Mathematics required
Chemistry required. Biology often required

Further information can be found on the UCAS website: www.ucas.ac.uk



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