

SWANLEA SCHOOL SIXTH FORM COURSE INFORMATION BOOKLET







English Literature

Why study it?

English Literature A-level is highly regarded by all the top universities and a good grade at A-level in English Literature is seen as an accurate indicator of a student's academic ability. Its wide appeal and its status as a top A-level subject makes English Literature an ideal choice for any students who wish to study at one of the top Russell Group universities.

When studying English Literature at A-level, students will learn about a range of works through the ages from Greek tragedy to 21st century novels. The A-level offers opportunities to discuss and explore important political, philosophical and historical ideas.

Students will learn how to write academic essays and will continue to develop these skills during the course. Literature students are also required to write two coursework essays. These essays require the student to write and research their essays independently. Great skills for any future studies.

Entry requirements

• GCSE grade 6 in English Language

What will I learn?

English Literature students at Swanlea will be studying texts within two broad genres: 'Elements of Tragedy' and 'Elements of Social and Protest writing'. In the first component, 'Elements of Tragedy', students will explore the nature of the tragic hero or heroine; their flaws; how they suffer and cause suffering; the role of fate; ideas of good and evil. In the second component, 'Elements of Political and Protest writing', students will look at issues of power and powerlessness; rebellion; gender and class struggle.

The coursework component of the A-level is designed to develop students' independence. Students are required to write two essays: one on poetry, and another on a novel. Students can choose to study their texts either through gender/feminism, Marxism, post-colonialism or narrative theory.

This component allows students to work independently and sharpens and improves their writing skills.

Assessment

We follow the AQA syllabus which is assessed through 80% examinations and 20% coursework.

English Literature



Getting prepared

If you are thinking of taking English Literature, read some of the books on the recommended reading list. It is important that you enjoy reading books. You are not expected to read a huge amount but you should be able to read the texts on the syllabus independently.

Future opportunities

English Literature is a 'facilitating subject' which means that it is an A-level subject which provides a route to many other subjects at university. English Literature can open many subject doors whether it be accountancy, law, the social sciences, philosophy and many more.

- 'The Reluctant Fundamentalist' by Mohsin Hamid's
- 'The Curious Incident of the Dog in the Night-Time' by Mark Haddon
- 'The Bell Jar' by Sylvia Plath

- 'Jane Eyre' by Charlotte Bronte
- 'Heart of Darkness' by Joseph Conrad
- '1984' by George Orwell
- 'The Wasp Factory' by Iain Banks
- 'The Kite Runner' by Khaled Hosseini





BTEC Health & Social Care

Why study it?

It is predicted that by 2020 the Health and Social Care sector will be the largest employment sector in the UK. The NHS is already England's largest employer with over 1.4 million staff. A qualification in Health and Social Care will allow you to become part of an expanding and dynamic sector which needs psychologists, nurses, bio medical scientists and paramedics to name only a few of the career opportunities available.

Studying Health and Social Care will allow you to develop real world experience through extensive work placements. You will directly benefit from putting theory into practice and will be given the opportunity to develop a wide range of skills and subject expertise.

Entry requirements

- GCSE grade 4/5 in English Language and Maths
- GCSE grade C in Science

What will I learn?

Level 3 comprises of 180 credits, covered in 13 units and equivalent to 3 A levels. They can be roughly broke n down into 3 disciplines: Sociology, Psychology and Biology. There is also a strong literacy component to Health and Social Care and you will be taught to read and write academically.

Units of study include:

- Psychological Perspectives for Health and Social Care
- Equality, Diversity and Rights
- An Introduction to Counseling skills
- Applied Sociological Perspectives
- Nutrition

- Social Policy
- Academic Literacy for Health and Social Care
- Health Psychology
- Anatomy and Physiology

Assessment

There are 4 externally assessed units which mainly consists of written exams, unit 4 will be completed under controlled assessment conditions and assessed as an exam (20%). The remaining 9 units will be coursework based and internally assessed.

Getting prepared

Level 3 Health and Social Care is an intensive course that requires commitment from students to work independently. Prepare yourself by reading the Social Care section of the Guardian newspaper weekly.

You may also benefit from gaining work experience in a Health and Social Care setting before you begin the course.

BTEC Health & Social Care



Future opportunities

A BTEC in Health and Social Care can give students a competitive edge when applying for university due to the large amount of work experience students do and because of the wide range of independent study skills students develop.

Students go on to a wide range of university courses such as: Psychology, Social Science, Social Work, Town Planning and education related degrees.

You can go to Rusell group universities with a BTEC qualification too – currently over 50% of students at UK universities have at least one BTEC qualification at level 2 or level 3.

Popular careers with Health and Social Care include:

- Pharmacy
- Psychology
- Youth work
- Police Force

- Teaching
- Nursing
- Social Work

- Sociology Review (Journal)
- Psychology Review (Journal)
- Nursing Times (Journal)

- The Casual Vacancy JK Rowling
- Before I go to Sleep S J Watson
- The Children Act Ian McEwan





Religious Studies

Why study it?

The study of Philosophy and Ethics at A Level is engaging, academically rigorous and excellent preparation for a wide range of courses at degree level. The subject involves a study of philosophical, theological and ethical theories which underpin and structure our world today. An understanding of these ideas is essential to an informed and nuanced engagement with key themes in politics, law, medicine, education, human rights and religion.

Entry requirements

• GCSE grade 5 in English Language and GCSE grade A in Religious Studies

What will I learn?

The course will focus on western philosophy including discussions on the arguments for and against the existence of God, differing views on how the world was created, discussions about the nature of religious language and how it can be used to prove and disprove God. We look at how religion influences day to day life and the choices that people make in light of their religious beliefs.

In ethics we will compare and contrast different theories on 'how to be good' applied to ethical dilemmas such as human experimentation. We will question whether we are truly free and what role the conscience plays in moral behaviour. We cover a range of normative ethical theories that are religious and non-religious including Kantian Ethics, Bentham and Mill and hybrid ethical systems such as Aristotle's Virtue Ethics.

In the Islam paper, we examine the impact of religious figures and sacred texts, consider the variant social and historical developments in religious thought and evaluate the role and value of different religious practices in Islamic communities.

Assessment

We follow the Eduqas syllabus which is assessed through 100% examinations. These exams will contain a mixture of explanation and evaluation questions.

Getting prepared

You should read a range of books that consider ethical and philosophical opinions – please see the list below. Joining a debating society or discussion group would also be excellent preparation.

Future opportunities

An A Level in Philosophy and Ethics is highly regarded by universities and is excellent preparation for degrees in Philosophy, Theology and Religious Studies, PPE, Sociology and Law. Graduates in these subjects may go on to careers in Law, Civil Service, Foreign Office and Teaching. The Ethical theories studied in this A Level are also highly relevant to degrees in Medicine, Science and Business.

Religious Studies



- Virtue Ethics by R Crisp & M Slote
- Moral Problems in Medicine: A Practical Coursebook by M Palmer
- Ethics: Discovering Right and Wrong by L.J Pojman
- Utilitarian Ethics by A. Quinton.
- Practical Ethics by Peter Singer
- Sophie's World by J. Gaarder





Geography

Why study it?

Firstly Geography is a facilitating subject. This means it is accepted by all universities including Russell Group institutions such as Oxford, Cambridge and UCL. They value it as an academic qualification which compliments Maths, English and the Sciences.

But, Geography is more important than that:

"So many of the world's current issues – at a global scale and locally - boil down to Geography, and need the geographers of the future to help us understand them. Global warming as it affects countries and regions, food and energy security, the degradation of land and soils from over-use and misuse, the spread of disease, the causes and consequences of migration, and the impacts of economic change on places and communities."

Michael Palin CBE- Writer, Presenter and Explorer

Entry requirements

- GCSE grade 5/6 in Geography
- GCSE grade 5 in English Language and Maths

What will I learn?

A Level Geography will enable you to engage critically with real world issues and places, apply your own geographical knowledge, understanding and skills to make sense of the world around you, and to help prepare you to succeed in your chosen pathway.

The specification Swanlea delivers offers an issues-based approach to studying Geography, enabling you to explore and evaluate contemporary geographical questions and issues such as the consequences of globalisation, responses to tectonic hazards, human systems and geopolitics and sustainability.

The specification content gives you the opportunity to develop an in-depth understanding of physical and human Geography, the complexity of people and environment questions and issues, and to become a critical, reflective and independent learner. The skills will prepare you well for the rigour of degrees in any of the sciences, humanities or social sciences (sociology, psychology, government and politics).

Assessment

This specification has four equally weighted content components (25%), offering both compulsory and optional content, assessed through three external exams and one piece of internally assessed fieldwork.

- Paper 1- Physical Geography: 2 hours- 30%
- Paper 2- Human Geography: 2 hours- 30%
- Paper 3- Synoptic: 1 hour 45- 20%
- Fieldwork- Independent Investigation- 20%

Geography



Getting prepared

If you have had a year when you have not studied Geography then use the summer holidays to look back over your GCSE work as much of the A Level content relates to this. Take an interest in the news as Geography is in the news every day. Read a news website, BBC news for example. Go to nationalgeographic.com and read their online articles.

Future opportunities

GEOGRAPHY IS THE FUTURE.

The study of Geography stimulates an interest in and a sense of wonder about places. It helps you make sense of a complex and dynamically changing world. It explains where places are, how places and landscapes are formed, how people and their environment interact, and how a diverse range of economies, societies and environments are interconnected.

Geographical enquiry encourages questioning, investigation and critical thinking about issues affecting the world and people's lives, now and in the future. Fieldwork is an essential element of this. You will learn to think spatially and use maps, visual images and new technologies, including geographical information systems (GIS), to obtain, present and analyse information. Geography inspires you to become global citizens by exploring your own place in the world, your values and responsibilities to other people, to the environment and to the sustainability of the planet.

- 'How many People can the Earth support?' by Joel Cohen
- 'The White Tiger' by Aravind Adiga
- 'Climate Wars' by Gwynne Dyer





History

Why study it?

Major events and key individuals continue to shape the world we live in. A world war begins, nuclear weapons are used for the first time, African Americans rise up and begin to fight for their rights in America, and women demand the vote across the world. Today we are faced with social, political and economic changes but how do we begin to make sense of this? How do people's attitudes and actions over time contribute to the society we live in. how can we understand the world we inhabit?

History is the study of the past but also the key to understanding contemporary events. It allows us to explore different perspectives and interpretations and to examine the causes and consequences of events. It equips us with the skills to analyse evidence and develop our own arguments. Because of the skills and knowledge acquired during the course, history is one of the most highly regarded subjects at A level.

Entry requirements

- GCSE grade B in History
- GCSE grade 5 in English Language

What will I learn?

The course covers a range of British and world History allowing you to study both a breadth and depth of topics. This will include a specific focus on Russian History, the origins of the British Empire and the Tudor era. It also includes a coursework component which allows you to develop essential independent study skills which will prepare you for university.

Assessment

We follow the AQA syllabus which is assessed through 80% examinations and 20% Coursework. These exams will be essay based and so it is essential you have strong written communication.

Getting prepared

Read some of the books on the recommended reading list. Subscribe to History Today and make the effort to visit the free museums and exhibitions in London. Familiarise yourself with the AQA History syllabus units 1J and 2N.

Future opportunities A level History offers you a strong foundation of academic study and a wealth of opportunities

in further education and your future career. History is a facilitating subject. It is a highly regarded subject by universities and employers and allows you entrance into careers such as law, journalism, government, media, finance, teaching and a broad range of other professions.

Recommended reading

by M. Chamberlain 'The British Empire:

'The Scramble for Africa'

Introduction' by A Jackson

by C Corin & T Fiehn • 'Stalin's Russia, Teach Yourself' by D Evans

• 'Communist Russia under Lenin and Stalin'

- 'The Lion's Share: A History of British Imperialism 1850-2011' by B Porter.

History



Government & Politics

Why study it?

As a UK and world citizen, politics effects every aspect of our lives. From economic and political systems, political ideologies, international relations to democracy and parliament. Politics is a relevant program of study that equips you with strong written communication as well as the ability to build arguments and debate. You will learn about the UK political system and the political theories that underpin the world we live in.

Government and Politics encourages critical thinking and the exploration of competing points of view. It also requires you to keep up to date with current affairs.

Entry requirements

• GCSE grade 5 in English Language

What will I learn?

At AS level you will learn about politics in the UK. Democracy and the people, how much freedom we have as individuals and the assertion of our human rights. You will evaluate the powers of the prime minister and parliament as well as the election process and constitution in the UK. You will explore the role of different pressure groups and examine key political parties and their policies. In addition to this you will investigate the role of the judiciary looking at key legal case studies.

At A2 we examine different ideologies such as socialism, liberalism, multi-culturalism and anarchism. We critique these theories by comparing and contrasting different beliefs and views and how they apply in world politics. We encourage critical thinking, debate and discussions throughout the course.

Assessment

We study the Edexcel course which is 100% exam. You will sit an AS exam in Y12 and an A2 exam in Y13.

Getting prepared

Watching the news and current affairs programmes is a great place to start. Read broadsheet newspapers and magazines like The Economist. Practise forming, explaining and justifying your own political opinion. This is a fundamental skill in Government and Politics.

Future opportunities

Many of our students have gone on to further study in courses such as Law and International Relations. Government and Politics also combines well with other subjects such as History and Economics at university level. It can lead to a diverse range of careers such as journalism, law, public relations, media, advertising and politics itself.

Government & Politics



- 'Contemporary British Politics' by B Coxall, L Robins and R Leach
- 'Government and Politics in Britain: an Introduction' by J Kingdom
- 'Politics Review', published by Philip Allan Updates four times in each annual volume (September, November, January and April) is the most widely used journal for students of
- AS and A-level Government and Politics. It contains a wealth of relevant articles, factual summaries and examination guidance and is available as a competitively priced student subscription.
- Many useful articles can also be found in more mainstream publications such as 'The Economist'.





Sociology

Why study it?

Sociology is an immensely challenging and exciting discipline. Its aim is to understand how societies work. It investigates the structures and cultures of different societies throughout the world and throughout history. When you study sociology you will acquire the knowledge and skills to analyse society in the United Kingdom in the 21st Century. You will also gain an understanding of the theories and concepts which form a key part of the current debate about contemporary society and the critical changes taking place.

Sociology will certainly help you to help make sense of your own experiences in society. It can give you new ways of seeing the social world around you. You will also develop the necessary skills to enable you to assess different views and reach conclusions about society, based on a careful consideration of evidence.

Entry requirements

- GCSE grade 5 in English Language
- Grade 5 if Sociology studied at GCSE

What will I learn?

In Year 12, you will study:

Paper 1 – Education with Methods in Context

- Do children from different social and ethnic backgrounds have an equal and fair chance at school?
- Why do girls do better than boys in exams?
- How do Sociologists research society and in particular the education system?

Paper 2 – Topics in Sociology (Families and households)

- Why do we live in families?
- Are women and men equal in families?
- How much power and influence do children have in their families?

In Year 13, you will study:

Paper 2 – Topics in Sociology (Beliefs in Society)

- Why do young people have an increasingly low level of participation in religion?
- What are sects and cults?
- Is there an increase in fundamentalism and why?

Paper 3 - Crime and Deviance with Theory and Methods

- What is crime? How is it different from deviance?
- Who breaks the law and why?
- Is the criminal justice system racist?
- What are sociological perspectives?
- How do sociologists research society and human behaviour?

Assessment

We follow the AQA syllabus which is assessed through 100% examinations. These exams will contain a mixture of short answer and extended writing questions.

Sociology



Getting prepared

Watching the news and current affairs programmes. Read broadsheet newspapers like the Guardian and Independent. Look at the British Sociological association website for relevant sociological studies, research and lectures. If you can join up to Sociology review online and begin to read about contemporary social issues that would be highly beneficial. Familiarise yourself with the AQA Sociology syllabus via the AQA website.

Begin to observe people's interactions critically, e.g. between youths, in different situations and link their behaviour to social institutions in society such as the family, religion, media or criminal justice system.

Future opportunities

A Level Sociology provides a good preparation for university as it equips you with the skills needed to succeed in higher education.

It is also important for any career which involves dealing with the general public such as teaching, social work, police and youth work.

Moreover, it is particularly relevant for those working in market research and social science research. Finally, it can lead to careers in advertising, journalism, government policy making, business and law.

- Sociology Review
- The Independent
- The Guardian
- The Times
- Barker, E. Making of a Moonie
- Durkheim E. Suicide
- Friedan, B. Feminine mystique
- Greer, G. Female Funuch
- Griffin, J. H. Black like me

- BBC1 Panorama
- Channel 4 Unreported world
- www.lse.ac.uk/serials/Bis
- www.mori.com
- www.sosig.ac.uk/sociology
- www.sociology.org.uk
- www.sociologyonline.co.uk
- www.britsoc.co.uk





Psychology

Why study it?

In the 2012 film Compliance, ordinary and decent workers in a fast-food diner are persuaded by a policeman to subject a colleague – one of their friends – to increasingly cruel and degrading punishments. Is this a ludicrous film story, or a frighteningly plausible chain of events? Why is somebody in a room with a mirror less likely to pick up and pocket a £20 note lying on the floor than somebody in a room without a mirror? Why if four people stand on the pavement and look skywards do others join them and also look upwards, but if only one person does so then no one else joins in?

Psychology is the study of human behaviour. A-Level Psychology will help you start to understand not only why we all behave so differently but also why so often we behave so predictably.

Entry requirements

- GCSE grade 5 in English Language
- GCSE grade 5 in Mathematics

What will I learn?

The course covers a range of theories explaining behaviour. You examine the individual studies that have been completed to test whether these theories are sensible and useful, and the degree to which they help us understand behaviour.

One of the first topics you will study, Memory, is an example of cognitive psychology. It includes two theories that explain how long and short term memory works: these mean that the evidence of eye witnesses might be flawed when used in a court room. Memory techniques that can be applied to your revision are also covered.

A developmental psychology topic, Attachment, is also studied: attachment is the process by which an infant forms a bond with a primary caregiver. The consequences of the success or failure of this relationship are studied in detail. Social Psychology covers two of the most famous research in Psychology: Milgram's study of obedience and Zimabardo's study of conformity, and how these two factors can influence the behaviour of individuals and, possibly, groups.

Psychopathology looks at definitions that aim to identify who is society might be described as mentally ill, the controversies surrounding this language, and the variety of treatments available. Biological psychology will look at scientific methods for research the brain and nervous system as well as drug treatments and finally biological rhythms.

Throughout you will learn how to take part in psychological debate; looking at the nature vs nurture debate and free will vs determinism. You will also learn the strengths and weaknesses of different research methods; so that you can assess the quality of evidence you are given. You will design and conduct ethical research experiments that will help you mediate between theory and practice, and allow you to analyse data in various forms.

Assessment

We follow the AQA syllabus which is assessed through 100% examinations. These exams will contain a mixture of short answer and extended writing questions.

Psychology



Getting prepared

Read some of the books on the recommended reading list. Look at the British Psychological Society website and find their "Research Digest" which you can have e-mailed to you once a month: it gives a précis of recent interesting research. Familiarise yourself with the AQA Psychology syllabus.

Future opportunities

A-Level Psychology is regarded by universities as a Science A-Level. It also allows you to develop your writing and commentary skills. Therefore studying Psychology A Level is excellent preparation for many degree courses. Many students that study Psychology at A Level go on to study Psychology at degree level. After their degree they may take a post graduate qualification in a particular area of Psychology for example, clinical psychology. A post graduate qualification is the first step to becoming a practising Psychologist.

- Opening Skinner's Box Lauren Slater
- The Man who Mistook his Wife for a Hat Oliver Sacks
- Scientific American and New Scientist magazines
- A Very Short Introduction to Psychology
- The Curious Incident of the Dog in the Night-Time Mark Haddon
- The Lucifer Effect Philip Zimbardo







Physics

Why study it?

Why does the universe behave the way it does? How can an ultrasound create a picture? How fast would you have to travel to fool a speed camera? What force would be necessary to stop a formula one car? What are CERN looking for? These are all questions you can answer by studying Physics.

Physics A Level is one of the most universally accepted qualifications for progression to university. The course content covers the basis of how things work, from the constituent parts of atoms out to the extent of the universe. You will integrate the concepts studied with a range of practical experiments throughout each topic giving the course both an academic and practical focus. You will learn to apply your knowledge of the key concepts to solve problems in a range of different contexts and applications.

Entry requirements

- GCSE A Grade in Combined Science or A in single sciences, also 6 in Maths
- It is desirable that you study A-level Maths alongside Physics A level

What will I learn?

- Physical quantities and units
- Nature of quantities
- Forces in action
- Materials
- Charge and current
- Electrical circuits
- Quantum physics
- Circular motion
- Gravitational fields
- Capacitors
- Electromagnetism
- Medical imaging

- Making measurements and analysing data
- Motion
- Work, energy and power
- Momentum
- Energy, power and resistance
- Waves
- Thermal physics
- Oscillations
- Astrophysics and cosmology
- Flectric fields
- Nuclear and particle physics

Assessment

A Level is covered by three examinations (2×2 hours 15 minutes and 1×1 hour 30 minutes) taken at the end of the course. There are a wide range of questions types which include multiple choice, short answer and extended response questions.

Getting prepared

Familiarise yourself with the OCR Physics –A syllabus. Review GCSE Physics, ensuring that you work through all of the 'Physics only' material that you may not have covered of you studied combined science. Brush up on you algebraic and trigonometric skills and read some of the books on the recommended reading list. Have a look at the Institute of Physics website and physics.org to get an understanding of recent developments in the field.

Physics



Future opportunities

Physics opens doors to all STEM degrees, including varieties of Physics, Maths and Engineering. Physics A level can also bring opportunities in advanced apprenticeships in industry, at present these include aerospace, nuclear power generation and electrical power distribution.

- How Not to Be Wrong: The Power of Mathematical Thinking by Jordan Ellenberg
- Wizards, Aliens, and Starships: Physics and Math in Fantasy and Science Fiction by Charles L. Adler
- Alan Turing: The Enigma by Andrew Hodges
- The Perfect Theory: A Century of Geniuses

- and the Battle over General Relativity by Prof. Pedro G. Ferreira
- The Accidental Universe: The World You Thought You Knew by Alan Lightman
- The Science of Interstellar by Kip Thorne
- The Elegant Universe by Brain Green
- Surely You're Joking, Mr. Feynman! by Feynman





Chemistry

Why study it?

Why does ice float? Why do people put salt on icy roads? Why do onions make you cry? How does aspirin stop pain in your body? Can you turn lead into gold? These are all questions you can answer by studying Chemistry A Level.

Chemistry A Level will also give you an exciting insight into the contemporary world of chemistry. It covers the key concepts of chemistry and practical skills are integrated throughout the course. This combination of academic challenge and practical focus makes the prospect of studying A Level Chemistry highly valued as a subject. You will learn about chemistry in a range of different contexts and the impact it has on industry and many aspects of everyday life. You will learn to investigate and solve problems in a range of contexts.

Entry requirements

• GCSE A Grade in Core and Additional Science or A in single sciences, also 5 in Maths

What will I learn?

- Atoms, compounds, molecules and equations
- Amount of substance
- Acid-base and redox reactions
- Electrons, bonding and structure
- The periodic table and periodicity
- Group 2 and the halogens
- Reaction rates and equilibrium
- pH and buffers

- Enthalpy, entropy and free energyRedox and electrode potentials
- Transition elements
- Organic chemistry
- Polymers
- Organic synthesis
- Analytical techniques (IR and MS)
- Chromatography and spectroscopy (NMR)

Emphasis throughout the course is on developing knowledge, competence and confidence in practical skills and problem solving. You will learn how society makes decisions about scientific issues and how sciences contribute to the success of the economy and society.

Assessment

There is a total of 6 hours of examinations (2×2 hours 15 minutes and 1×1 hour 30 minutes) taken at the end of the course. The exams consist of a wide range of question types including multiple choice, short answer and extended response questions. There is also opportunity to demonstrate your knowledge of both theory and practical skills through the examinations.

Getting prepared

Read at least two books from the reading list below to widen your understanding for the context of the course.

Future opportunities

A Level Chemistry is an excellent base for a university degree in healthcare such as medicine, pharmacy and dentistry as well as the biological sciences, physics, mathematics, pharmacology and analytical chemistry. Chemistry is also taken by many law applicants as it shows you can cope with difficult concepts. Chemistry can also complement a number of arts subjects.

Chemistry opens doors to a range of career opportunities including chemical, manufacturing

Chemistry



Future opportunities (cont.)

and pharmaceutical industries and in areas such as forensics, environmental protection and healthcare. The problem solving skills are useful for many other areas, too, such as law and finance.

- Stuff Matters: Exploring the Marvelous Materials That Shape Our Man-Made World by Mark Miodownik
- Seven Elements that Changed the World: An Adventure of Ingenuity and Discovery by John Browne
- H2O: A Bibliography of Water by Philip Ball
- The Periodic Table by Primo Levi
- The Molecule that made the World by Nick Lane
- The Disappearing Spoon by Sam Kean





Biology

Why study it?

Why does your sister look like you? How do medicines work? What is DNA? Do clones exist? Who was Darwin? These are all questions that can be answered by studying Biology A level. A Level Biology will give you an exciting insight into the contemporary world of biology. It covers the key concepts of biology and practical skills are integrated throughout the course. This combination of academic challenge and practical focus makes the prospect of studying A Level Biology A highly appealing. You will learn about the core concepts of biology and about the impact of biological research and how it links to everyday life. You will learn to apply your knowledge, investigate and solve problems in a range of contexts.

Entry requirements

• GCSE A Grade in Core and Additional Science or A in single sciences, also 5 in Maths

What will I learn?

- Development of practical skills in biology
- · Biological molecules
- Enzymes
- Cell division, cell diversity and cellular organisation
- Transport in animals
- Communicable diseases, disease prevention and the immune system
- Classification and evolution
- Excretion as an example of homeostatic control
- Hormonal communication
- Photosynthesis
- Cellular control
- Manipulating genomes

- Ecosystems
- Cell structure
- Nucleotides and nucleic acids
- Biological membranes
- Exchange surfaces
- Transport in plants
- Biodiversity
- Communication and homeostasis
- Neuronal communication
- Plant and animal responses
- Respiration
- Patterns of inheritance
- Cloning and biotechnology
- Populations and sustainability

Emphasis throughout the course is on increasing knowledge, developing competence and confidence in practical skills and developing problem solving. You will learn how society makes decisions about scientific issues and how science contributes to the success of the economy and society.

Assessment

Emphasis throughout the course is on increasing knowledge, developing competence and confidence in practical skills and developing problem solving. You will learn how society makes decisions about scientific issues and how science contributes to the success of the economy and society.

Getting prepared

Read at least two books from the reading list below to widen your understanding for the context of the course.

Biology



Future opportunities

A Level Biology is an excellent base for a university degree in healthcare, such as medicine, veterinary or dentistry, as well as the biological sciences, such as biochemistry, molecular biology or forensic science. Biology can also complement sports science, psychology, sociology and many more.

A Level Biology can open up a range of career opportunities including: biological research, medical, environmental, forensics, sports and science communication. The transferable skills you will learn, such as problem solving, are also useful for many other areas, such as law.

Recommended reading

- Neanderthal Man: In Search of Lost Genomes by Svante Pääbo
- The Invisible History of the Human Race: How DNA and History Shape Our Identities and Our Futures by Christine Kenneally
- · Arrival of the Fittest: Solving Evolution's

Greatest Puzzle

- The Walking Whales: From Land to Water in Eight Million Years by J. G. M. "Hans" Thewissen
- Almost Like a Whale: The Origin of Species Updated by Steve Jones
- Genome by Matt Ridley





Maths

Why study it?

Studying mathematics to an advanced level is a challenging but interesting and enjoyable experience. Students like its challenge, its clarity, and the fact that you know when you are right.

You should also be aware of the wide importance of mathematics, and the way in which it is advancing at a spectacular rate. Mathematics is about pattern and structure; it is about logical analysis, deduction and calculation. When patterns are found, often in widely different areas of science and technology, the mathematics of these patterns can be used to explain and control natural occurrences and situations. Mathematics has a pervasive influence on our everyday lives and contributes to the wealth of the country.

Entry requirements

- Grade 7 or above for GCSE Maths
- GCSE grade 5 in English Language

What will I learn?

You will learn construction and presentation of rigorous mathematical arguments through appropriate use of precise statements and logical deduction.

You will learn how to solve cubic equations in addition to quadratics, you study vectors in three dimensions rather than just two, you explore trigonometry beyond the familiar geometrical context. You will develop your knowledge of probability and statistics from GCSE, so that you can make defensible conclusions in the presence of uncertainty: if you flip a coin ten times and it shows tails every time, would you claim that the coin is biased? You will study a variety of topics including algebra and functions; coordinate geometry in the (x, y) plane; sequences and series; trigonometry; exponentials and logarithms; differentiation and integration.

Assessment

- There will be 3 papers sat at the end of 2 years. Each paper is equally weighted and is a 2 hour written exam.
- Paper 1 and 2 will consist of Pure Maths whilst Paper 3 will consist of Statistics and Mechanics.

Getting prepared

Students studying A level Mathematics are expected to have covered and mastered all the material in the GCSE Mathematics Higher Tier. This is regarded as basic background knowledge and will not be tested by questions focused directly on it. However, it may be assessed within questions focused on other material from the relevant specification. Therefore it is essential that you are confident in working with Grade 7-9 Number & Algebra topics.

A secure grasp of GCSE material will give you a very strong foundation for A level study. Aim for a grade 8 or 9 at GCSE, always attempt the harder questions at the end of practice papers. Develop a confident and accurate understanding of Algebra as this is vital for all aspects of A level Mathematics. Do lots of extra practice questions.

Maths



Future opportunities

Those who qualify in mathematics are in the fortunate position of having a wide range of career choices. The ability

- to use logical thought,
- to formulate a problem in a way which allows for computation and decision,
- to make deductions from assumption.
- to use advanced concepts.

are all enhanced by mathematics. For this reason mathematicians are increasingly in demand. With a mathematics degree, you can pursue a career in finance, statistics, engineering, computing, teaching, telecommunications, financial trading and multinational business to name a few. This flexibility is even more important today, with the current uncertain economic employment market.

The most recent employment surveys show graduates with a qualification in mathematics or computer science are at the top of the income list after graduation.

Recommended reading

 Any book by: Marcus du Sautoy, Simon
 1089 and All That - David Acheson Singh and Ian Stewart





Art

Why study it?

A surge in demand for multimedia artists, animators, and illustrators—especially those who are computer and technology-savvy—is projected for the next few years, due to companies' demand for advertising in online and digital formats.

With this in mind, following a creative pathway could put you in a great position for many successful future careers.

Art and Design goes well with History of Art and Media Studies, but really it's a great companion course for practically any area of study. Whether you are majoring in the arts, a technical subject or science, encouraging your own creativity is always a bonus and can also help you generate great new ideas for your other subjects.

Entry requirements

- GCSE grade B in Art & Design (or Portfolio submission with controlled assessment task verified by centre)
- GCSE grade 5 in English Language

What will I learn?

During your A Level course you'll find out about a whole range of different media, techniques and processes. From charcoal to computers, you just can't have enough ideas when it comes to expressing yourself. The course is big on hands-on experience too. It's the work you produce that counts.

Art and Design qualifications have a large workload. Students who take the subject must adapt as a matter of survival. While the heavy workload can be an initial shock, those who succeed emerge with the focus, organisational and time management skills that many other students dream of and hugely desired by Universities.

The emphasis in this course is learning by doing, so you'll be able to create imaginative personal work. For the first unit you will produce a self-directed portfolio of coursework selected by you and you will create ideas in response to a range of experiences, workshops and artists. For the second unit you will be given an externally-set assignment from AQA, which will require you to create ideas in response to one of the eight exciting starting points you will be given.

Assessment

AS Art:

- 60% coursework.
- 40% Externally Set Assignment set by the exam board over a period of 12 weeks, followed by a 10 hour final assessment.

Art



Assessment (cont.)

A Level Art:

- 60% coursework (Personal Investigation), with the inclusion of a 3,000 word essay based on the development of your work.
- 40% Externally Set Assignment set by the exam board over a period of 12 weeks, followed by a 15 hour final assessment.

Getting prepared

Visit some of the galleries and museums London has to offer for free over the Summer holidays. Experience Art and Design in all manner of different formats. Take photographs to document your holiday or even read some of the books on the recommended reading list.

Future opportunities

Those with a wide skill set have an advantage, in any career. Some people have a mathematical brain. Others have strengths in written language. Others excel in creative areas such as art and design. If you are lucky enough to excel in two or three of these areas, you are part of a much smaller subset of the population. Those who are multi-skilled are astronomically more useful, well-rounded, hireable and capable of excelling in a much wider range of professions. Unless you are aiming for a degree that requires particular specialism (university websites clearly outline recommended and required subjects), it can be beneficial to select a wide range of subjects. Art enhances fine motor skills, hand-eye coordination, problem solving skills, lateral thinking, complex analysis and critical thinking skills. No matter what career you choose, those who can arrange, present and display material in a way that is aesthetically pleasing have an advantage. Many students go on to take higher education in art and design, then aim to join the world of advertising as graphic designers, architects, illustrators, typographers or become painters, sculptors, textile designers, fashion designers, photographers to name just a few.

- 'AQA Art & Design Student Handbook' published by Nelson Thornes
- 'The Andy Warhol Diaries' edited by Pat Hackett pub by Warner Books
- 'The American Leonardo: A Tale of 20th Century Obsession, Art and Money' by John Brewer
- 'The Shock of the New' by Robert Hughes
- Modern Painters -brilliant monthly magazine devoted to painting, only interviews with painters and exhibition reviews.
- Crafts Magazine- published every two

- months by the Crafts Council. For all aspects of the Applied Arts including interviews with Craftspeople, exhibition reviews, competitions to enter, job vacancies etc www.craftscouncil.org.uk
- The Photographers' Magazine
- Printmaking Today published by Cello Press, four issues per year www.cello.press. All aspects of Printmaking covered with interviews, exhibition reviews, competitions etc

Art

Galleries, Exhibition Spaces, Permanent Exhibitions

Larger galleries and Museum spaces, all with permanent exhibitions:

- The Tate Modern Modern and Contemporary art
- The Tate Britain British Art
- The Victoria and Albert Museum Applied arts and design from around the world
- The National Portrait Gallery
- CONTEMPORARY ART GALLERIES WITH CHANGING EXHIBITIONS:
- The White Cube

- The Saatchi Gallery
- The Whitechapel Art Gallery
- The Crafts Council Gallery
- Cork Street Galleries- commercial art galleries on London's famous Cork Street

Contemporary Art Galleries with Changing Exhibitions

- The White Cube
- The Saatchi Gallery
- The Whitechapel Art Gallery

- The Crafts Council Gallery
- Cork Street Galleries- commercial art galleries on London's famous Cork Street





Economics

Why study it?

As consumers we want lots of goods and services, but there aren't enough resources for everyone to have everything they want. So what goods should we make, how should we make them and to whom should we give them? This is the central economic problem that economists want to solve. In Economics you have to form opinions and think about how to address some of the fundamental changes our societies face.

The department has a long history of delivering outstanding results. All of our students go on to business degrees and significant proportion have moved on to Russell group universities.

Entry requirements

• GCSE grade 5 in English Language and Maths

What will I learn?

Microeconomics is the study of individuals and firms. You will learn how they make decisions about what to make, what to buy, and at what price. Why does it make sense for train companies to have really high peak time prices? Who should pay for the damage that pollution causes? Should cleaners earn the same amount as doctors, and if not, why not?

In macroeconomics you will look at the bigger picture. You will study what is happening behind the news headlines in the economy as a whole. You will probably have heard words like recession, austerity and inflation, but what do these words mean and why are they important? Should governments aim to make their countries richer, or aim to make their people happier? How do we tackle deep rooted poverty and the problem of unemployment?

Throughout the course you will notice links with other subjects: with science through data analysis, and with Maths when we consider graphs and basic equations. Economics can be very mathematical, but an ability to explain and analyse in excellent written English is near essential. A mathematical way of thinking helps when we use and interpret graphs and it is therefore important that you feel comfortable with that.

There are philosophical and ethical elements to the course: when you learn about economic growth you debate whether happiness is more important than wealth. You will often develop and draw on wider knowledge; for example when considering changes in food prices you will need to think about climate change, population growth and technical advances to understand the whole story.

Assessment

Economics is taught linearly and you would sit two AS exams in the summer at the end of year 12. Paper 1 is the Introduction to markets and market failure. Paper 2 is The UK economy – performance and policies. To attain the full A level, you would then sit three exams in the summer at the end of year 13. Paper 1 is Markets and business behaviour. Paper 2 is The national and global economy. Paper 3 is Microeconomics and macroeconomics. There are a mixture of shorter questions, data response and essay questions. There is no coursework in economics. Please note that the AS grade does not count towards the A level. The A level grade would be attained purely on the 3 papers you will sit in year 13.

Economics



Getting prepared

Watching the news and current affairs programmes is a great place to start. Read broadsheet newspapers and magazines like The Economist. Practice coming up with and explaining your own opinion. This is a fundamental skill in Economics.

Future opportunities

Our students will be able to confidently apply for Economics courses at university. Following success at university many of them will be able to pursue future careers in areas such as accountancy, banking and business management, investment banking, journalism, government agencies, teaching, overseas employment and more.

- 'The Undercover Economist' by Tim Hartford
- 'The Logic of Life' by Tim Hartford
- 'Superfreakonomics' by Steven D. Levitt and Stephen J. Dubner
- 'Nudge: Improving Decisions About Health, Wealth, and Happiness' by Richard H. Thaler and Cass R. Sunstein
- 'Predictably Irrational' by Dan Ariely





Business

Why study it?

Business Studies is one of the most interesting, relevant and varied subjects available. Newspaper and television headlines offer continual reminders of how important the business world is to us all. In recent years much attention has been directed to issues such as fair trade, business ethics, global warming and the credit crunch. You will investigate the success of Apple and Ryanair in comparison to the relative problems faced by other major companies in the economic downturn. The department has a long history of delivering outstanding results. All of our students go on to business degrees and significant proportion have moved on to Russell group universities.

Entry requirements

GCSE grade 5 in English Language

What will I learn?

You will focus on planning and financing a business, and the key decisions that you will need to take, and also look in detail at managing a business and tackling the issues that may arise. Key topics that we will consider are: finance, people in business, operation management, marketing and competition.

There is also a focus on large businesses which may well be trading internationally. We look at how managers might measure, and more importantly, improve the performance of the business. In the second year you will assess the external factors that can act as catalysts for change, and considers these in relation to a range of businesses. For example, students have studied the impact of the recent UK recession along with social changes and ethics.

Assessment

Business is taught linearly and you would sit two AS exams in the summer at the end of year 12. To attain the full A level, you would then sit three exams in the summer at the end of year 13. There are a mixture of shorter questions, data response and essay questions. There is no coursework in business. Please note that the AS grade does not count towards the A level. The A level grade would be attained purely on the 3 papers you will sit in year 13.

Getting prepared

Watching the news and current affairs programmes is a great place to start. Read broadsheet newspapers. Practice coming up with and explaining your own opinion. This is a fundamental skill in business.

Future opportunities

Our students will be able to confidently apply for business courses at university. Following success at university many of them will be able to pursue future careers in areas such as accountancy, banking and business management.

Business



- 'The Entrepreneur's Book of Checklists: 1000 Tips to Help You Start and Grow Your Business' by Robert Ashton
- 'How I Made It: 40 Successful Entrepreneurs Reveal All' by Rachel Bridge
- 'My Big Idea' by Rachel Bridge
- 'Sun Tzu The Art of War for Managers: 50 Strategic Rules Updated for Today's Business' by Gerald A. Michaelson
- 'No logo' by Naomi Klein





BTEC Business

Why study it?

BTEC's provide a more practical approach to learning. Lessons are made up of a combination of theory and practice. You will use some of your lessons to carry out investigations, work in teams, listening to lectures from exteral visitors and trips to businesses such as Coca Cola, Cadbury's and car production plants.

The department has a long history of delivering outstanding results. All of our students go on to business degrees and a significant proportion have moved on to Russell group universities.

Entry requirements

• GCSE grade 4 in English Language and Maths

What will I learn?

In marketing you will look at how firms, big and small conduct market research and use it to develop target markets. You will analyse the importance of quantitative data in business and how it helps firms develop marketing strategies at the executive level. In finance you will create all the important documents necessary for a small business start-up. These include a cash flow forecast and breakeven charts. You will also analyse more complex documents such as the trading profit and loss account and the balance sheet. In HR you will analyse the importance of effective recruitment, communication, organisational structures and some theory behind leadership and management. In operations management you will learn about efficient methods of stock control and how this could help lower costs. You will analyse how large firm control costs and why they possess all the cost advantages.

Assessment

Business is taught over two years. A combination of internal and external assessment is used to determine your final grade. For the internal assessment, you will complete several units of coursework to get your final grade at the end of year 13. Four of the units are assessed externally. You will also sit one exam at the end of the second year.

Getting prepared

Watching the news and current affairs programmes is a great place to start. Read broadsheet newspapers and magazines like The Economist. Practice coming up with and explaining your own opinion. This is a fundamental skill in business.

Future opportunities

Our students will be able to confidently apply for business courses at university. Following success at university many of them will be able to pursue future careers in areas such as accountancy, banking and business management.

BTEC Business



- 'The Entrepreneur's Book of Checklists: 1000 Tips to Help You Start and Grow Your Business' by Robert Ashton
- 'How I Made It: 40 Successful Entrepreneurs Reveal All' by Rachel Bridge
- 'My Big Idea' by Rachel Bridge
- 'Sun Tzu The Art of War for Managers: 50 Strategic Rules Updated for Today's Business' by Gerald A. Michaelson
- 'No logo' by Naomi Klein





Computer Science

Why study it?

- Do you use your computer at home for more than just surfing the net?
- Do you have the patience to work at a problem until you can solve it?
- Do you enjoy Maths?
- Are you curious about how computers really work

Almost every aspect of modern life is affected by computers from running our personal and social lives using the internet, mobile devices and home appliances, to complex programs that help businesses and public services run smoothly. Vast networked systems of computers control global communication, trade, finance and transportation, and much more besides.

Studying computer science will open a window for you to discover how computers work and enable you to design and determine what they do. You will need a good grasp of maths and be willing to learn the language of code.

Entry requirements

GCSE grade 5 in Maths and English Language

What will I learn?

Computer systems

The Central Processing Unit (CPU) is essentially the nerve centre of a computer through which all information flows. You will examine how this works and how processors differ; for example desk top computers and mobile devices. You will find out how to identify different data types, work out how programs integrate through data exchange and develop your own software using sophisticated coding languages.

Algorithms and programming

In this unit you will become the doctor of problem solving by learning to recognise, analyse and break down 'problems' in order to create solutions that the computer will be able to understand. Here you will discover how invaluable algorithms are in helping you describe and resolve complex problems. Algorithms are step-by-step instructions that lead to a final outcome and they exist not only in a scientific context but all around us. Following a cake recipe is just a basic real life example of an algorithm. Algorithms are also responsible for an enormous range of complex activities from code breaking to financial market management, predicting behaviour, crime prevention and social networking.

Programming project component

Undoubtedly, the most enjoyable aspect of the course, coding or programming. Wow the world with an amazingly innovative program that will change life as we know it using all the problem solving techniques, skills and programming language fluency you have perfected over the course. Now is your chance to show how you can analyse problems, design and develop working solutions in the real world.

Computer Science



Assessment

Computer systems

AS LÉVEL WRITTEN EXAM: 1HR 15MINS, 50% OF OVERALL RESULT. A LEVEL WRITTEN EXAM: 2HR 30MINS, 40% OF OVERALL RESULT.

Algorithms and programming

AS LEVEL WRITTEN EXAM: 1HR 15MINS, 50% OF OVERALL RESULT. A LEVEL WRITTEN EXAM: 2HR 30MINS, 40% OF OVERALL RESULT.

Programming project component

A LEVEL NON-EXAM ASSESSMENT: 70 MARKS, 20% OF OVERALL RESULT.

Getting prepared

The best thing you could do to prepare yourself well for this subject is to focus on your GCSE Maths. This will develop your problem-solving skills which will be invaluable when you start this course. In addition, you could start exploring HTML programming and we recommend using www.w3schools.com as your main resource.

Future opportunities

Our students will be able to confidently apply for ICT and computing courses at university. Following success at university many of them will be able to pursue future careers in areas such as ICT, Business Courses or apprenticeships; Multimedia Design or Business and IT management; Occupations involving IT such as Technical Support, Software development, IT Project Management, Network Manager, Multimedia Designers.

- OCR AS and A Level Computer Science, PM Heathcote and RSU Heathcote (PG ONLINE: ISBN: 978-1-910523-05-6)
- OCR Exam board http://www.ocr.org.uk/ qualifications/as-a-level-gce-computer-
- science-h046-h446-from-2015/
- W3School http://www.w3schools.com/





BTEC ICT

Why study it?

BTECs are industry-led qualifications designed to help you learn more about a particular area of work. 62% of large companies have recruited employees with a BTEC qualification. As part of the Level 3 Extended Diploma in ICT you will discover a range of exciting aspects of technology that are used in industry. This is a "hands" on practical course and you will pick up practical skills in areas such as programming and understanding the fundamentals of computer systems. These will develop your computational-thinking skills and you can apply these skills to solve problems.

The department has a long history of delivering outstanding results with a significant proportion of students going on to Russell group universities to study a range of degrees including Computing, Business and Education Studies.

Entry requirements

• GCSE grade 4 in English Language

What will I learn?

- The ability to learn independently
- The ability to research actively and methodically
- To be able to give presentations and be active group members.
- Reading technical texts
- Effective writing
- Analytical skills
- Creative development
- Preparation for assessment methods used in degrees.

Assessment

BTEC Computing is taught over two years. A combination of internal and external assessment is used to determine your final grade. For the internal assessment, you will complete several units of coursework to get your final grade at the end of year 13. You will also sit four exams over the two years. There are a mixture of shorter questions, data response and essay questions.

There are 13 units of which 7 are mandatory and 4 are externally assessed

- Mandatory content (67%).
- External assessment (42%)

Getting prepared

It would be useful to gain a "hands-on" practical experience of a programming language such as Python. The software is freely available and there are numerous online video tutorials to assist your learning e.g. Youtube.com. This will allow you to develop the thinking skills to effectively analyse a problem and break it down into its component parts.

You could also visit websites such as computingweekly.com/Ted.com will allow you to keep in touch with emerging technologies and their impacts on everyday life.

BTEC ICT



Future opportunities

Our students will be able to confidently apply for IT and computing courses at university. Following success at university many of them will be able to pursue future careers in areas such as ICT, Business Courses or apprenticeships; Multimedia Design or Business and IT management; Occupations involving IT such as Technical Support, Software development, IT Project Management, Network Manager, Multimedia Designers.

Recommended reading

- A-Level Game Programming Mikiel Agutu
- Python Programming for the Absolute Beginner Third edition (31 Jan. 2010)



Level 3 Health and Social Care is an intensive course that requires commitment from students to work independently. Prepare yourself by reading the Social Care section of the Guardian newspaper weekly.

You may also benefit from gaining work experience in a Health and Social Care setting before you begin the course.



BTEC Facts

- 95% of universities accept BTECS.
- Some of the great universities that accept BTECS include; York, UCL, Manchester, London Met, Greenwich, Southbank.
- In 2015, 100,000 BTEC students were accepted into universities across the UK.
- University College London and the Institute of Education say: "BTEC students have better self-motivation".
- Many university courses prefer BTEC Level 3 because of the extensive work experience that BTEC students have.







How to apply?

Download a copy from the website http://swanlea.co.uk/sixth-form/

Contact the school and request an application form. One will then be sent to you.

Admissions, Swanlea Sixth Form, 31 Brady Street, London, E1 5DJ Tel: 0207 375 3267 ext 375

 ${\bf Email: sixth form@swanlea.co.uk}$















