



Altwood School Sixth Form
Subject Information
2020-2022

Applications for internal students are made online

External candidates should contact school. If emailing please put Sixth Form Application in the subject line.

Telephone: 01628 622236 / Email: altwood@altwoodschoo.co.uk



Art and Design

Examination board: AQA

A level requires the minimum of a level 5 grade in Art and Design at GCSE

An Art and Design education should enable students to develop their creativity physically and intellectually. Our students are encouraged to enjoy the challenges of art, design, photography and textiles by developing practical skills, exploring the wider world of art and using an aesthetic vocabulary. At A-Level students are expected to demonstrate a greater depth of study and specialisation in a particular medium.

Visits to London galleries including; Tate Modern, Tate Britain, National Gallery, National Portrait Gallery, Royal Academy and a London Architecture photo-shoot.

To extend learning in Art and Design students should join our after school life drawing classes, join local Art clubs and classes in the community, work with younger students at Art clubs inside/outside of school, and enter local competitions such as Windsor's Arts Festival.

Students are expected to use their independent study time to complete homework tasks, address all teacher action points and meet deadlines. There is a sixth form art study located in the Art department with place to work and store their art work safely. Approx. 4 hours a week of independent study is expected.

Course Content

This is a practical based subject where the content produced over the two years forms the basis of the grade. 60% Portfolio /Component 1 and 40% Component 2 and Externally Set Assignment.

Portfolio:

Building up a portfolio of work, developing a range of new skills and techniques. Each term will focus on a different topic including, natural forms, architecture, the human form and a concept.

Component 1: Personal Investigation and Dissertation:

Personal investigation. A practical investigation supported by written material, includes a 1000-3000 word dissertation.

Component 2: Externally controlled assignment

On receipt of the AQA set assignment paper in February, students develop ideas and explore processes. Following this preparatory period students must complete work in supervised conditions. A-Level – 15 hours

The work produced is graded by an externally visiting moderator at the end of year 13, sent on behalf of the exam board.

All the top Arts universities expect students to complete an Art Foundation Diploma prior to degree level. Many Altwood students go to Reading College and Buckinghamshire New University to complete this course. Options further afield include Central Saint Martins, Chelsea College, Ravensbourne, University of Kingston and Loughborough.

Many students go on to higher education in art and design, then aim to become a Photographer, Architect, Costume/Set Designer, Art & Design Teacher, Gallery and Museum work, Advertising, Art Therapist, Model Maker, Display/Window Dresser, Jeweller, Exhibition Designer, Fashion Designer, Fine Artist, Visual Effects Designer, Textile Designer, Illustrator, Cartoonist, Interior Designer, Landscape Designer, TV/Film Director, Make-up Artist, Packaging Designer, Painter Decorator...just to name a few.

Often students who study Art and Design often study Media Studies, Design Technology, English, History, Languages or Business Studies alongside to compliment the subject.

Biology

Examination board AQA

A level requires the minimum of a level 6 grade in Biology and Mathematics at GCSE

A-level Biology will give you the skills to make connections and associations with all living things around you. It is such a broad topic that you are bound to find a specific area of interest and it opens the door to a fantastic range of interesting careers.

All students are expected to research and read around topics in their own time in order to cope with the demands of the course.

Topics include –

- Biological molecules
- Cells
- Organisms exchanging substances with their environment
- Genetic Information
- Genetics, populations, evolution and ecosystems
- Energy transfers in and between organisms
- The control of gene expression

There is no coursework on this course but your performance during practicals will be assessed. The AS has two exams at the end of the year which are both 1 hour and 30 minutes long. At the end of two years you will sit three exams which are all two hours long. At least 15% of the marks are based on what you learnt in your practicals.

Practicals will give you the skills and confidence you need to investigate the way things behave and work. It will also ensure that if you go on to study a Biology- based subject at university you will have the practical skills needed to carry out successful experiments in your degree. Practical activities will include using microscopes to see cell division, dissection of animal or plant systems, aseptic technique to study microbial growth, investigating activity within cells, investigating animal behaviours and investigating distributions of species in the environment.

According to bestcourse4me.com, the top seven degree courses taken by students who have a Biology A-level are Psychology, Biology, Sport and exercise science, Medicine, Anatomy, Physiology and Pathology Pharmacology, Toxicology and Pharmacy Chemistry.

Career opportunities include Doctor, Clinical molecular geneticist, Conservation officer, Pharmacologist, Research scientist, Vet, Marine biologist and Dentist.

Business Studies A Level

Examination Board - AQA

A level requires the minimum of a level 5 grade in Mathematics and English at GCSE

A GCSE in Business Studies is not essential

Students on this course will study business in a variety of contexts (e.g. large/small, UK focused/global, service/manufacturing) and consider:

- The importance of the context of business in relation to decision making
- The interrelated nature of business activities and how they affect competitiveness
- The competitive environment and the markets in which businesses operate
- The influences on functional decisions and plans including ethical and environmental issues
- The factors that might determine whether a decision is successful eg the quality of data and the degree of uncertainty
- How technology is changing the way decisions are made and how businesses operate and compete
- The impact on stakeholders of functional decisions and their response to such decisions
- Use of non-quantitative and quantitative data in decision making (including the interpretation of index numbers and calculations such as ratios and percentages).
 - Managers, leaders and decision making in marketing, operational, human resource and financial performance.
 - Strategic decision making and analysing business performance.

Students are expected to have an interest in the business world and regularly read the business news to extend their understanding within the subject.

We have strong links with businesses in the local area and regularly visit them, as well as inviting in guest speakers.

The course ends with 3 exams at the end of Year 13.

A Business Studies qualification allow can open up a realm of job opportunities from starting up your own business to being a successful Manager.

Warwick, Bath and Bournemouth Universities all have credible Business departments offering degrees in Business, Business Management and Marketing

Chemistry

Examination board – OCR B (Salters)

A level requires the minimum of a level 6 grade in Chemistry and Mathematics at GCSE

A-level Chemistry will give you an exciting insight into the contemporary world of chemistry. It covers a range of different contexts, conveying the excitement of contemporary chemistry. This combination of academic challenge, relevant context and practical focus makes the prospect of studying A-level Chemistry highly appealing. 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 and have the opportunity to build practical skills through a range of experiments and investigations. You will develop knowledge, competence and confidence in problem solving and learn how society makes decisions about scientific issues and contributes to the success of the economy and society.

The course will give each student an interesting and challenging experience to link key chemical ideas and understand how they relate to each other. It will also develop transferable skills including decision making, problem solving, research and analytical skills.

All students are expected to research and read around topics in their own time in order to cope with the demands of the course.

Topics include –

- Elements of life
- Developing fuels
- Elements from the sea
- The ozone story
- What's in a medicine?
- The chemical industry
- Polymers and life
- Oceans
- Developing metals
- Colour by design

There is a total of 6 hours of examinations (2 x 2 hours 15 minutes and 1 x 1 hour 30 minutes) taken at the end of the course. The papers consist of a wide range of question types including multiple choice, short answer and extended response questions. To achieve a Practical Endorsement you will be required to display competency in following procedures, applying an investigative approach when using instruments and equipment, working safely, making and recording observations, researching, referencing and reporting.

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

Career opportunities include Chemical, Manufacturing, Pharmaceutical, forensics, Environmental protection and Healthcare. Many Chemistry graduates also enter the financial services sector in banking and management consultancy because of the analytical aspect of the subject.

Computer Science

Examination board - AQA

A level requires the minimum of level 6 grade in Mathematics at GCSE

The course will consist of two components, which will be externally assessed and weighted at 50% each. The A Level will consist of three components, two of which will be externally marked question papers making up 80% of the qualification. The other 20% will be the coursework project, which will retain its current qualities but will be more focused, with greater emphasis on coding and programming with a simple assessment model and marking criteria.

- Topics covered include –
- Computing Principles
- Algorithms and Problem Solving
- Computer Systems
- A programming project
- Other areas covered include –
- Elements of computational thinking
- Programming
- Algorithms

Computer Scientists are highly sought after by all good Universities. Computing is an ever expanding are of academia with new course being introduced each year as a result of the technological revolution.

Future career opportunities include Computer Programming, Software engineer, Network Manager, Systems Analysis and Design.

Criminology Level 3 Diploma

Examination Board - Eduqas

Qualification requires 5 GCSE'S at grade 4 or above, including Mathematics and English

Criminology is a qualification which includes elements of Psychology, Law and Sociology. The course aims to develop knowledge and understanding of the criminal justice system and an awareness of the different types of crime as well as exploring the behaviour and theories behind why people commit crime.

Course Content

The course consists of four units:

- **Changing Awareness of Crime**
This unit focuses on building your understanding of the different types of crime and the things that influence the way we perceive crime. We will also examine the reasons why certain types of crimes are less likely to be reported to the police.
- **Criminological Theories**
We will look at how we define crime and what constitutes criminal behaviour. We will also look at the fundamental question of why people commit crime, drawing on biological, psychological and sociological theories. We will then examine how these theories may have influenced social policy in relation to crime.
- **Crime Scene to Courtroom**
This unit will enable you to develop your understanding of the criminal justice system from the moment a crime has been identified to the verdict in the courtroom. We will look at the complex processes involved in investigating and prosecuting crimes, and we will review real criminal cases to evaluate the evidence and the validity of the verdict.
- **Crime and Punishment**
Using the knowledge and understanding gained from units already studied we will address questions such as: Why do most of us tend to obey the law even when to do so is against our own interests? What institutions have we developed to ensure that people do obey laws? What happens to those who break the law? Why do we punish people? How do we punish people? How effective is the criminal justice system in preventing and dealing with criminality?

Methods of Teaching

We make use of a variety of teaching and learning methods including teacher-led discussions, debates, independent and collaborative research and presentation tasks, group work and interactive IT-based tasks and quizzes. Your learning will be further enhanced through trips and visits and talks from visiting speakers involved in the criminal justice system.

Methods & Patterns of Assessment

50% of the assessment is through externally marked examinations and 50% through internally marked controlled assessment.

Where Could It Take Me?

The course will enable you to develop a range of transferrable skills including independent research skills, problem solving, presentation skills and the ability to work collaboratively. It will support access to higher education degree courses in the social sciences such as Criminology, Sociology, Psychology and Law. The study of Criminology will also equip you with a good grounding in the knowledge and understanding required to go on to employment in the criminal justice system in areas such as the probation service, policing and the courts and tribunals service.

Financial Implications

We recommend that students purchase the course textbook which costs around £25, although we will also make some copies of the book available in the Sixth Form Centre.

Design & Technology Product Design

Examination board - Eduqas

A level requires the minimum of a level 5 grade in D&T and mathematics at GCSE

At least 15% of the written examination must assess mathematical skills. The level of maths content is higher tier GCSE Maths

Design is all about innovation and meeting the needs of an intended user. To fully prepare A level students for a possible career or degree in this field of study we aim to develop their skills in a wide range of practical, designing and investigative activities. This includes modelling and manufacturing products in a range of resistant and compliant materials including wood, metal, plastics, 3D printing, composites, modelling materials. Using CAD/CAM packages and testing the suitability of design concepts out on different end users.

Course Content

This is a practical and written based subject where the content produced over the two years forms the basis of the grade.

Component 1: Design and Technology in the 21st century written examination: 3 hours. 50%

The examination includes a mix of structures and extended writing questions assessing learner's knowledge and understanding of:

- Technical principles
- Designing and making principles.

Along with their ability to:

- Analyse and evaluate wider issues in design and technology.

50% written examination/ Component 1 and 50% Component 2 practical

Component 2: Design and make project. Non-exam assessment. 50%

A sustained design and make project, based on a brief developed by the candidate, assessing their ability to:

- Identify, investigate and outline design possibilities
- Design and make prototypes
- Analyse and evaluate design decisions and outcomes. Including for prototypes made by themselves and others.

Year 12

A range of design brief tasks developed in response to a contextual challenge set by the awarding organisation, and a final prototype(s) based on that design brief

Year 13

A final prototype(s) based on a design brief developed by the Learner [i.e. it must have a client who can analyse and feedback to the student on the usefulness of their design ideas]

We organise a trip to the Design Museum, V and A and Science Museums in London during Yr 12 and offer students the opportunity to enter National Design competitions as part of their Yr 12 design tasks

Universities that have specialist Design related degree courses in Product Design- Industrial Design – Design Engineering – Architecture – 3D Design include:

Brunel University, Loughborough, Nottingham Trent, University of Bath, Leeds University

Many students who study Product Design tend to either study maths or physics which would tend to lead into STEAM based courses at University. Some study ICT along with Product Design and these students can often move onto programming or software design related courses.

There are those who study Product Design with arts based subjects as the creative options are then often pursued, an art foundation course is then often a popular pathway chosen.

English Literature

Examination board - Edexcel

A level English Literature requires the minimum of a level 6 grade in English at GCSE.

Students who study English Literature at A Level are strong at arguing, discussion and analysis. They can argue emotively, and are also able to empathetically consider the views of others. Students will study a range of modern and historical plays, novels and poetry, and are encouraged to form their own opinions, whilst contesting or supporting the ideas of others.

The study of English is deeply rooted in a knowledge of the world around us, and students must view society with a critical eye. Therefore, English pairs very well with History, Media and Sociology A Levels, as there is significant overlap with the criticism and the context required.

On the course students study:

Component 1: Drama: Students analyse two plays from the genre of tragedy: one modern and one Shakespearian. These will be analysed and other academic writing studied to develop a variety of viewpoints. These will be assessed in two separate essay questions, under exam conditions. A critical anthology will also be provided to develop Shakespearian knowledge.

Shakespeare's "Othello" and Williams' "A Streetcar Named Desire"

Component 2: Prose: Two novels will be read on a theme, and compared. The themes will be chosen based on the interests of the class. Possible options are Women in Society, Colonisation and its aftermath, Science and society, Childhood, Crime and detection or The Supernatural.

Component 3: Poetry: Poetry is studied from a range of eras, poets and styles to gain an in depth understanding of the development of poetry through history.

Coursework: One comparative essay referring to two texts. This is 20% of the final grade and can be on any two texts of the student's choice. It is the most exciting part of the English Literature A Level, where students have free choice of the books studied and the area or research for their question. Supported by their teachers, they create their own thesis, and prove this using the texts, genres and contexts which inspire them most. This is excellent preparation for writing at University, and is a fantastic opportunity to build on areas of interest and learning on other A Level subjects, such as History, Media or Philosophy.

English Literature is a facilitating subject can lead to great careers such as, Law, journalism, teaching, politics, management, psychology and Human Resources. The key focus of English E Level is to understand people and understand the world, and students will hone their skills of empathy, understanding and critical thinking, which are imperative in any role that will involve working with other people and decision making. Leadership skills are also

developed through essay writing, as making choices and proving a clear viewpoint will always be imperative in employment. Finally, it proves impressive communication skills, which being a hugely enjoyable way to consider people, society, and ourselves. English Literature A Level continues to be considered an impressive choice from both Universities and employers, offering an excellent foundation for both employment and future study.

Extended Project Qualification (EPQ)

Examination board - AQA

Qualification requires the minimum of a level 5 grade in English and Mathematics at GCSE

The EPQ is a researched based qualification which is largely independent. There will be 1 hour of teacher contact a week so each student can embark on a self-directed and self-motivated project. The student chooses a topic and then plans, researches and develops their ideas concluding in a finished project. The topic can be directly related to a student's main study programme but beyond the specification.

The EPQ is assessed through a written report of 5,000 words or in the form of an artefact accompanied by a shorter written report of 1,000 words. An artefact can be a short film, a short story, a social event, a piece of art-work or a realised design.

Students will also be assessed throughout the project by keeping a production log as the process of recording and completing a project is as important as the finished project. Assessment marks will also be gained via a presentation by the student of their learning journey.

Students will learn to–

- Apply organisational skills and strategies to meet objectives
- Manage, identify, design, plan and complete a project
- Use resources and research by obtaining and selecting information from a range of sources, analyse data and demonstrate an understanding of any appropriate connections and complexities of their topic
- Develop and realise by using a range of skills including using new technologies in order to solve problems and to take decisions critically, creatively and flexibly
- Review by evaluating the outcome including their learning and performance

The EPQ carries a half an A - level weighting and universities are increasingly including it as part of a standard offer. It is often used to help them decide between similar students post results so it can be the difference between a student getting into their chosen university or not.

An EPQ qualification is recognised and valued by all employers due to the wide range of skills the student will gain.

Certificate in Financial Studies

Examination board – London Institute of Finance

Qualification requires the minimum of a grade 4 in English and Mathematics at GCSE

The purpose of the course is to prepare students for further study through the development of the core skills of critical analysis and evaluation, synthesis, verbal communication (through classroom discussion) and written communication. Students will develop the knowledge and skills required for them to make informed financial decisions by introducing them to the risks and challenges involved in personal finance and the tools for effective planning. Within this, it provides a solid basis for creating financial inclusion, by exploring social-economic trends and their relationship with an individual's circumstances and attitudes.

You will have external exams that start in January 2020.

Course Content

This is an exam-based course that has 4 units with an external exam at the end of each. The first exam consists of 35 multiple choice questions and an hour and 45-minute exam based on a pre-seen case study.

Unit 1 Financial Capability for the Immediate and Short term (FCIS)

Unit 2 Financial Capability for the Medium and Long Term (FCML)

Unit 3: Sustainability of an Individual's Finances (SIF)

Unit 4: Sustainability of the Financial Services System (SFS)

The financially related content of this qualification provides a foundation for continued study within the finance sector and a wide range of other business-related disciplines; many students go on to study subjects such as accounting, business, finance and banking at university or through further vocational training. The transferable skills developed are also valuable for further study in unrelated disciplines. The financial capability content and skills support students in making informed financial decisions about employment and further study options. This qualification carries the maximum UCAS points available

French / Spanish

Examination board - AQA

A level requires the minimum of a grade 6 in French/Spanish at GCSE

A-level French/Spanish helps students develop confident, effective communication skills in the target language and a thorough understanding of the culture of countries and communities where it is spoken. It develops an interest in, and enthusiasm for, language learning and encourages students to consider their study of the language in a broader context.

To maximise their potential in French/Spanish, students should –

- Watch TV/films in target language
- Read online news in target language
- Keep a break-down of topics/units/course content so they can prepare accordingly
- Keep up to date with social issues and trends, Political and Artistic culture and grammar
- Read a novel and watch at least 1 film in target language.

Language assessment consists of written exams and oral exams. You must be able to talk in a group and before an external examiner for oral exam.

Students should try to read/listen to something in the target language every day to improve their language skills.

Many universities offer language degrees or the opportunity to study a language alongside another subject with a year abroad.

A level French/Spanish can lead onto a career in Business, Education, Politics, Research, Customer services or almost anything.

Those who study a Language often choose English Literature, History or Government & Politics to compliment it.

Geography

Examination board - AQA

A level requires the minimum of a level 5 grade in Geography at GCSE

The course involves both building on topics studied at GCSE and introduces new topics like Changing Places.

The Course is Linear and involves 2 exams at that are 1 hour and 30 minutes each

- Physical Geography (Coasts and Hazards)
- Human Geography (Changing Places and Fieldwork)

The A level course includes 3 components including 2 exams that are 2 hours and 30 minutes in length

- Physical Geography (Water, Deserts, Glaciers and Ecosystems)
- Human Geography (Global governance, Changing Places and Urbanisation)
- A fieldwork project must be completed which will be of 3-4,000 words in length.

To collect data for the project several days will be spent at a Field Study Centre where equipment and local expertise can be utilised. Slapton FSC in Devon has been a popular venue with previous geographers due to its unique coastal and isolated rural location

Students will be expected to undertake challenging tasks and often wish to continue their studies at University where a degree is seen as a very useful entry into many different jobs due to its wide breadth of study

Famous Geographers include Michael Palin.

Health and Social Care (Extended Certificate)

Examination Board - Cambridge Technical

Qualification requires 5 GCSEs at grade 4 or above, including Mathematics and English.

This course is equivalent to 1 A level (it carries equivalent UCAS points). It is aimed for students interested in careers in nursing, midwifery, occupational therapy, social work and other health, social science and early years related degrees.

This course can be studied alongside 2 other A levels or equivalent subjects or as part of a vocational pathway and contributes a sound basis to many other subject/apprenticeship degrees.

The course has both an academic and vocational context so you will study both in the classroom and experience placements where you will gain insight into vocational careers and be able to apply the theory you learn.

Course Content

Mandatory units:

- Building positive relationships in health and social care
- Equality, diversity and rights in health and social care
- Health, safety and security in health and social care
- Anatomy and physiology for health and social care

Optional Units may include

- Infection Control
- Sociology for Health and Social Care
- Nutrition for Health
- Public Health

Methods of Teaching

Examined units are taught in a classroom environment but the course is also very student-centered so you will be participating in presentations, group work and discussions. You will develop independent research skills and learn to work as a team member through a variety of practical tasks and activities linked to your coursework units.

Methods & Patterns of Assessment

During each of the 2 years of study you will participate in coursework units, which will be internally marked and externally moderated and undergo a total of 3 exams to gain the qualification. These 3 units will be examined and externally marked. The other 3 coursework units will be internally marked. All units are awarded distinction, merit or pass. An external moderator will confirm the grade. Successful achievement of each unit will be combined leading to a final grade for the whole qualification which carries UCAS points.

Where Could It Take Me?

This course will enable you to apply for university degrees in subjects such as nursing, midwifery, occupational therapy, radiography and paramedic science. Also degrees in social work, primary teaching or youth studies. It will make you employable in the areas of

childcare, youth work, older people care, adult disability care or give you access to higher apprenticeships.

Financial Implications

You are advised to purchase an e textbook currently £16 or a hard copy for approximately £24. You will be required to meet any costs associated with carrying out work placements.

Work Experience

In addition to classroom teaching and coursework there will be a work experience commitment in a range of care settings. This will contribute to your studies as well as help you make an informed career choice. It will also support your university application.

History

Examination board - AQA

A level requires the minimum of a level 5 grade in English and History at GCSE

A History A-level qualification has been designed to help students understand the significance of historical events, the role of individuals in history and the nature of change over time. They will gain a deeper understanding of the past through political, social, economic and cultural perspectives. The topics available to them throughout the course will provide them with the knowledge and skills they require to succeed as A-level historians.

There are 3 components –

- A 200 Year breadth study of the Tudor era
- A depth study of Russia in Revolution.
- Coursework which at present is based on the fall of the Roman Empire.

The final exam consists of 2 papers on the breadth and depth studies, with 40% for each paper. The coursework component is worth 20% of the final exam.

Students are expected to do additional reading outside of lesson and are given reading lists of the most up to date text books available. The local library should be a first port of call but students should remember that their Library can and will bring books in upon request.

History is an academically challenging subject and viewed with high regard by Universities.

There are many History graduates and it is not necessarily seen as a subject which will lead to a history related job. It is viewed more as an enabling subject that allows critical evaluation and extended comprehensive writing of a high standard.

BTEC Level 3 National Extended Certificate in IT

Examination Board – Edexcel BTEC Extended Certificate

This course requires the minimum of a level 4 grade in English and Mathematics at GCSE

BTEC in Information Technology (IT) is a way to help you learn and achieve a qualification in a subject which can offer you a wide variety of topics, skills and careers.

The BTEC Level 3 Extended Certificate provides a specialist work related programme of study that covers the key knowledge and practical skills required in the IT industry.

It is broadly equivalent to an A-level in terms of UCAS tariff points and requires 360 guided Learning Hours, the same as an A-Level.

The course consists of three mandatory units and one optional unit

Mandatory Units:

- Unit-1 Information Technology Systems (120glh)
- Unit-2 Creating Systems to Manage Information (90glh)
- Unit-3 Using Social Media in Business (90glh)

Optional Unit:

- Unit-5 Data Modelling (60glh)

How is this course assessed?

Unit 1 is a written paper examination & Unit 2 is an assessment of the students database knowledge. Both are externally assessed

Unit 3 and Unit 5 are both internally assessed and externally moderated

Future career opportunities include Computer Programming, Software Engineer, Network Manager, Database Administrator

Mathematics

Examination board - Edexcel

A level Mathematics requires the minimum of a level 7 grade in Mathematics and make the required 'step up' to A level mathematics by completing the bridging course.

Course Aims

A Level mathematics is an exciting, interesting and challenging subject. This course is a two year linear course. The aim is to develop your understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment. You will extend your math's skills and techniques and be able to recognise how a real-life situation may be represented mathematically. You will develop skills in reasoning, logic, evaluation, comprehension and problem solving.

General Content

A Level mathematics is divided into three units (as seen below in the table). These are made up of two Pure Mathematics units and one Applications unit. The latter contains topics from mechanics and statistics. Mechanics is the study of practical problems involving motion and forces and is a good choice if you study Physics. Statistics focuses on probability and data analysis and is a combination course to the study of Economics. Typical content will include: mechanics, statistics, vectors, numerical solutions, integration, differentiation, functions and geometry.

The major differences between GCSE and A-level are:

- Greater emphasis on your ability to analyse questions requirements
- A greater proportion of questions whose solution requires more complex steps
- More rigour in the way you express yourself mathematically and use correct notation
- A far greater expectation that you will act independently to resolve any difficulties with understanding.

Skills

The course assumes mastery of higher level number and algebra skills at GCSE. You will be extending your knowledge of algebra and trigonometry as well as learning some brand new topics such as calculus. If you enjoy the challenge of problem solving, this course will be very appealing. An appreciation and enjoyment of the subject, an excellent work ethic, an inquisitive mind and a resilient attitude will bring about success.

What you need to know

Prior to the start of the course we would expect all students to have a clear and confident understanding of algebra including:

- Setting up and solving simple linear equations including simultaneous linear equations
- Solving quadratic equations by using factorisation, the quadratic formula and completing the square
- Using index laws for multiplication and division of integer, fractional and negative powers
- Using surd form including rationalising a denominator

Aptitudes required

Initially, A Level maths appears to be very different from GCSE because you need to be able to recognise both the topic and techniques that are relevant to a particular question. You should have the ambition to master the new methods in order to experience the satisfaction of solving a problem successfully.

Work-load and types of work

In the early stages of the course you will be given exercises which strengthen your understanding of new concepts encountered in lessons. Later on you will have end of topic work sheets and tests which develop your ability to solve problems under timed conditions.

Methods of Assessment

The course is equally weighted across the three exams, each of which is 2 hours long and worth 100 uniform marks.

All examinations must be taken at the end of the course in Year 13.

Assessment Criteria

Qualification	Component	Assessment
A level Mathematics	Paper 1:	2 hours
	Pure Mathematics 1	100 marks
	Paper 2:	2 hours
	Pure Mathematics 2	100 marks
	Paper 3:	2 hours
	Statistics and Mechanics	100 marks

A-Level Key Changes

- All assessments will be linear, with 100% examination.
- A level maths will have 100% prescribed content, containing both pure and applied (no optional content).
- Mechanics and Statistics will be part of the compulsory content for A level maths students

Future with Mathematics

Mathematics at Altwood School will prepare students to move into Higher Education courses. The opportunities for students of mathematics, on completion of full - time education, are considerable. It complements and supports other courses, for example: Physics, Chemistry, Design Technology and Business Studies. Qualifications in Mathematics are acceptable as an entry to many different careers. The Mathematics A-Level course and AS course are designed to provide academic and vocational experiences.

Progression and Career Opportunities

A Level Mathematics is highly regarded within higher education and is required at the top Universities to study Mathematics, Economics and Engineering. The Russell Group of leading UK universities has published Informed Choices, a guide to post-16 subject choices, which listed A Level Mathematics as a facilitating subject.

Furthermore, with an A-Level Mathematics qualification, you will be able to apply to Cambridge and Warwick Universities to access the Advanced Extension Award in Mathematics and/or Step Papers as part of their course offers. These courses are offered to the most able mathematicians.

Maths graduates have one of the highest rates of graduate employment. Mathematicians enter a very wide range of career areas ranging from Aerospace and Defence to Finance. Studying Mathematics provides you with valuable skills and a firm base for life-long learning and will help students who intend to study a variety of subjects ranging from economics to medicine.

Higher education courses that are strongly related to A Level Maths include Economics, Architecture, Engineering, Accountancy and Actuarial Science, Computing, and Information Technology. Likewise, you might consider pursuing the study of mathematics at degree level or even get involved in mathematical research at postgraduate level.

For further information on graduate jobs visit **mathscareers.org.uk**

Media Studies

Examination board - Eduqas

A level requires the minimum of a level 5 grade in English at GCSE

You will learn to make connections between different media forms and products, between media products and their contexts, and between theory and practical work.

You will engage with a range of rich and stimulating media forms and products.

You will develop media production skills, apply their knowledge and understanding of the theoretical framework to media forms and products. Debating and discussion skills are useful.

A Radio club and Film club are on offer as extra-curricular activities

To extend learning in Media students should engage in media forms outside of lesson time

You will study products from 9 media forms -

- Television
- Magazines
- Online media
- Music videos
- Video Games
- Advertising and film marketing
- Newspapers
- Radio
- Film (Industries only)

You will sit 2 examinations in year 2. Both are worth 35% leaving 30% coursework (based on audio visual extract or print publication). The coursework allows for learners to develop media production skills and become active creators of meaning. You will explore your own interests when responding to a choice of set briefs in a range of forms such as:

TV: create a cross media production to include a sequence from a new television programme and related print or online products

Advertising and marketing (Film): Create a cross media production to include a print marketing campaign for a new film, and related audio visual or online products

Advertising and marketing (Music): Create a cross media production to include an original music video for a new or local unsigned band or artist and related print or online products.

Magazine: create a cross media production to include a new print magazine and related audio visual or online products

How much reading/independent learning should students undertake to succeed in this subject?

Lots and Lots! Students will need to study various set texts and some of their own in order to respond in detail to the questions in the exam. Independent learning, research and reading is expected.

Southampton, Newcastle, St Marys, Kings College London, Warwick and Cardiff Universities are considered specialists in Media.

Typical career pathways include –

- Media planner
- Multimedia specialist
- Programme researcher, broadcasting/film/video
- Public relations officer
- Runner, broadcasting/film/video
- Television/film/video producer
- Advertising account executive
- Broadcast journalist
- Editorial assistant
- Event organiser
- Information officer
- Magazine journalist
- Market researcher
- Writer

The A level subjects that compliment Media include Photography, Art, Business, IT or Philosophy and Ethics.

Physical Education

Examination board - OCR

A level requires the minimum of a level 5 grade in PE at GCSE

The course is split into seven theoretical areas which are examined in three papers at the end of Year 2. There is also a 'Performance in Physical' mark which is based on a performer's practical ability in one sport and their ability to evaluate and analyse the performance of others.

Content

Assessment Overview

Applied anatomy and physiology	Physiological factors affecting performance (01)
Exercise physiology	2 hour written paper with 90 marks
Biomechanics	30% of total A level
Skill acquisition	Psychological factors affecting performance (02)
Sports psychology	1 hour written paper with 60 marks
	20% of total A level
Sport and society	Socio-cultural issues in physical activity and
Contemporary issues in physical	sport (03)
Activity and sport	1 hour written paper with 60 marks
	20% of total A level
Performance or Coaching	Performance in Physical Education (04)
Evaluation and Analysis of Performance	60 marks (non-examined)
for Improvement (EAPI)	30% of total A level

What activities are being offered extra-curricular?

Additional activities follow the Physical Education Department extra-curricular timetable. Clubs are on every lunchtime and after school.

To extend learning wider reading is essential along with coaching and leading in Key Stage 3 lessons. Attendance of an external club for the practical element of the course is advisable.

Assessment is made up of three examinations and a practical element examined by staff and then moderated against other centres.

Students will need to present to the moderator for the practical element of the course and discuss and evaluate the strengths and weaknesses of others, creating an action plan for improvement.

The course is mostly theory and practical lessons are rare. **It is the expectation that students participate in sport outside of lesson time.**

Students need to read and carry out independent study/research for an additional 9 hours over each two week period.

Career Pathways:

- Physiotherapist
- Nutritionist
- Fitness Trainer
- Sport and Health Consultant
- Sports Analyst
- Sports Journalism
- Sports Photographer
- Sports and Media
- Sports Marketing
- Events Management
- Teaching
- Coaching

This is an absolutely fabulous website for careers in sport:

https://careers-in-sport.co.uk/jobs/?industry_area=Sports%20Business

What universities are considered a specialist in your subject area?

Brighton, Bath, Cardiff, Chichester, Exeter, Leeds and Loughborough are considered specialist PE universities and they consider this subject as a science.

Physics, Biology, Chemistry, English, Maths, Media, Geography, Philosophy and Ethics compliment this subject at A level.

Philosophy and Ethics

Examination board - OCR

A level requires the minimum of a level 6 grade in either religious studies, history or Grade 6 English Language/Literature

“The great virtue of philosophy and ethics is that it teaches not what to think, but how to think. It is the study of meaning, of the principles underlying conduct, thought and knowledge”. Philosophy & Ethics is a highly respected subject by top universities and employers as it demonstrates ability to understand different religions and cultures and clearly shows a higher, more intellectual order of thinking. Ethics is a branch of philosophy concerned with morality. It explores actions and consequences, motives, moral decision-making and human nature.

Ethics can be broadly divided into two:

- 1) Ethical theory – covers systems or methods for making moral decisions
- 2) Practical or applied ethics

If you are going to study ethics seriously, you must be prepared to examine your views critically and be open to a range of ideas that may be different from your own. What you read may challenge your convictions. At the very least, it will require you to re-examine them.

The course gives you the opportunity to develop your philosophical thinking skills and put very famous arguments to the test. It is an excellent preparation for university, as we encourage learning through discussion, engagement with famous primary texts and independent research. You don't have to be religious to study this course. You just have to be interested in the most important questions that humans can ask and you must be prepared to think logically and critically about the way that you argue.

Skills gained in this subject -

- Clear & Logical thinking
- Critical evaluation
- Literacy & Expression
- Negotiating
- Organising
- Planning
- Problem solving
- Research
- Working to deadlines

Examples of Philosophy units include:

- The Cosmological Argument
- The Teleological Argument
- The Problem of Evil & Suffering
- Religious Experiences
- The Ontological Argument

Examples of Ethics units include:

- Utilitarianism
- Situation Ethics
- Sexual Ethics
- Natural Moral Law
- Virtue Ethics

Examples of Christianity units include:

- The nature of God
- Religious Pluralism
- Nature and role of Jesus

You will sit 3 exams at the end of two years of study. (Philosophy, Ethics and Religion (Christianity) papers each two hours long.)

Philosophy and Ethics is a well-regarded A Level which can lead students into almost any course of further study. It is a particularly good background for students who are interested in research in the commercial or industrial sector as it is a subject which requires students to ask the big questions about human behaviour and motivation.

Religious Studies graduates move into a variety of careers: law, travel, advertising, human resources, diplomacy, publishing, journalism, the media and teaching.

Many go on to do postgraduate study or professional training, sometimes after a period of employment.

Physics

Examination board – Edexcel (Specification 9PH0)

A level requires the minimum of a level 7 grade at GCSE Science or Physics and a level 7 grade in GCSE Mathematics

A-level Physics allows you to explore the fundamental nature of the universe, from the sub-atomic scale to the Universe as a whole.

You will learn to investigate and solve problems in a wide range of contexts and have the opportunity to develop useful experimental skills through a series of experiments and investigations. You will develop your knowledge, competence and confidence in problem solving and also learn how society makes decisions about scientific issues which contributes to the success, and failures, of the economy and society. There is a strong mathematical thread running throughout the course, however your powers of estimation, detailed description and explanations will also be required in each and every context.

All students are expected to independently study, research and read around topics in their own time in order to cope with the demands of the course. The recommended ratio to challenge for the highest grades is an accepted 1:3 contact time to independent study.

The units covered during the two-year course are:-

In Year 12:

- How Physicists Work – experimental methodologies and skills: this unit runs throughout the entire A Level.
- Mechanics
- Materials
- Electric Circuits
- Waves and the particle behaviour of light
- Further Mechanics

In Year 13:

- Further Mechanics (revisited)
- Gravitational Fields
- Electric & Magnetic Fields
- Nuclear & Particle Physics
- Nuclear Radiation
- Thermodynamics
- Space
- Oscillations

A Level Physics has no coursework as such, but your performance during practical will be assessed. You will be provided with a lab book in which to record all your required practical experimental work. Practical work will give you the skills and confidence you need to investigate the way phenomena behave and work. It will also ensure that if you go on to study a STEAM-based subject at university you will have the necessary skills needed to carry out successful experiments in your chosen degree.

At the end of two year course you will sit three examinations, totalling 6 hours. Your Practical skills and knowledge are assessed during the third paper.

Career opportunities include Geophysicist, Field seismologist, Research scientist, Meteorologist, Structural engineer and Systems developer. You can also move into Astrophysics, Nanotechnology, Renewable energy and more.

Sociology

Examination board – Eduqas

A level requires the minimum of a level 6 grade in English at GCSE

How the course is assessed: Three exam papers at the end of Year 13

- Paper 1 - 2 hours 30 minutes
- Paper 2 - 1 hour 45 minutes
- Paper 3 - 2 hours 30 minutes

Overview

Sociology is the scientific study of human societies. It is about all kinds of social relationships that people share with each other; in their families, in their schools and in work.

This qualification offers an engaging and effective introduction to Sociology. Students will learn the fundamentals of the subject and develop skills valued by higher education and employers, including critical analysis, independent thinking and research. Sociology is a popular choice among students, it involves the study of a thing (i.e. society) that we all exist in. So, before you have even opened a sociology textbook you will already have acquired some knowledge of society. Sociology invites us to challenge and question our common sense assumptions about society and develop a sociological imagination.

The class offers an introduction to the basic nature of society and the relationship between society and the individual. This course focuses on how society functions and is organized, and how society impacts and influences individual motivation, understanding, action, and well-being. Basic sociological ideas regarding social relations, social interaction, social structure, and social change are examined. Students are introduced to key issues addressed by contemporary sociologists; class, race, gender, sexuality, religion, globalization, education, health care, crime, the media, and the environment. The knowledge gained in this course will aid students in future studies within a variety of fields and careers, and encourage the development of critical thinking about important issues.

It is expected that students should be familiar with the content of serious newspapers and publications such as Social Trends and Sociology Review. Students will not be required to be aware of any specific research articles; however, they should be able to draw on such material in order to provide supporting evidence for answers.

Course Objectives

Upon successful completion of this course students will be able to:

- Identify how the sociological perspective illuminates understanding.
- Discuss specific areas of study within Sociology.
- Synthesize the local and global nature and impacts of social circumstances.

- Critically examine theoretical perspectives and be able to apply them to current issues.
- Evaluate ideas and debates using the sociological perspective.

What universities are considered a specialist in your subject area – The top 16

CUG Rank		University Name	Entry Standards	Student Satisfaction	Research Quality	Graduate Prospects	Overall Score
2017	2016						
1	1	Cambridge	551	4.15	2.98	82	100.0
2	3	Durham	452	4.08	2.90	77	94.6
3	2	Bath	395	4.16	3.23	78	93.9
4	8	Edinburgh	480	3.87	3.16	64	93.8
5	14	Aberdeen	435	4.00	2.86	71	93.0
6	11	Exeter	424	4.28	2.99	62	92.6
7	6	Glasgow	429	4.22	3.20	62	92.5
8	5	Surrey	421	4.38	2.91	63	92.2
9	9	Loughborough	364	4.19	3.35	68	92.0
10	13	Leeds	400	4.19	3.12	64	91.9
11	25	Sussex	357	4.09	2.75	79	91.9
12	-	King's College London	448	3.88	3.01		91.8
13	7	Warwick	404	4.06	2.76	65	90.9
14	12	Lancaster	362	4.21	3.21	64	90.9
15	15	York	376	4.22	3.27	60	90.5
16	22	Nottingham	363	4.02	3.13	67	90.2

Qualities of Sociology students –

- Hardworking
- Ability to work independently
- Good essay writing skills
- Engagement in the local, national and international news
- Analytical skills
- An appreciation of the society they live in
- Enthusiasm for carry out extra reading and study

Sociology can lead to an FE Sociology or social sciences course, or courses in Social Work, Social Science, Human Resource Management, Nursing, Advertising or Teaching.

You could pursue a career in Market Research, Management and Recruitment, child care, working with the elderly or people with specific learning disabilities and the Police.

The subjects that compliment Sociology are Psychology, Sciences, History, Geography, Philosophy & Ethics, Media, Law and Criminology

Consortium Subjects

We work in partnership with other Maidenhead schools to offer a range of subjects which might attract smaller cohorts, and so in combination can be offered to the young people across the consortium. These subjects are timetabled in the same block to allow for movement to the other schools and so only one consortium subject can be selected. Students following consortium subjects will receive regular feedback via written reports and parents will have the opportunity to attend parents' evenings at the host school.

Subjects being nominally offered at other schools this year are:

Cox Green	Desborough	Furze Platt	Newlands
*Computer Science	Computer Science	Product Design	Music
*Spanish	Government and Politics	MFL – German	Further Maths
Theatre Studies			* MFL – French or Spanish
BTEC Health and Social Care			Product Design (Likely to be graphics/ textiles based)

*If not offered elsewhere.

Please discuss consortium subjects with members of the Senior Leadership Team.

N.B. In some instances schools do not end up offering this subjects if they do not have a big enough uptake.