EPSOM

COLLEGE

Sixth Form Information Booklet 2014

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EPSOM
COLLEGE

INTRODUCTION TO THE SIXTH FORM

The Sixth Form at Epsom is serious fun. There are 350 students across the two year groups and this allows everyone to receive tailored individual attention while being part of a lively, varied and vibrant community. Each week all students engage in a rich array of activities. Academic aspiration is the central focus and all students are encouraged to become inquisitive, independent learners who will prosper at university and beyond. To this end every student has a personal academic tutor who monitors performance, agrees targets and ensures best working practices are being followed: there are frequent one-to-one conversations between student and tutor but, importantly, the student owns the process. Standards are high with the overwhelming majority of students securing places at leading Russell Group universities*. The details of the academic subjects available for formal study in the Sixth Form are contained in this booklet.

In addition to timetabled lessons all students have the opportunity to lead a lively intellectual life outside of the classroom. There is a programme of distinguished visiting speakers – the Lord Rosebery Lectures Series – and a growing number of societies such as the Creative and Literary Society, the History Society, the Investment Club and the Young Enterprise Scheme. There are frequent assemblies to which students are encouraged to contribute with their own short stimulating talks, lectures and presentations.

Students are encouraged to be musical through house singing competitions, involvement in the three College choirs, house soirees and a Sixth Form charity concert. In addition to this there is a strong drama department and students may participate in theatrical productions either as a performer or as part of the production team.

The College timetable has recently been restructured and a daily 'Cultural Hour' has been created to allow space for more societies to flourish. There are trips to the theatre, music concerts and conferences, and students also have the chance to participate in cultural residential trips such as the Cheltenham Literature Festival, choir tours and a trip to Italy.

Epsom has a long tradition for sporting excellence and engagement. Superb facilities on its rolling grounds – over 80 acres within the M25 – means that all students are engaged in purposeful and competitive sporting activity on site throughout the week.

Epsom College sees the Sixth Form experience as being synonymous with service and students are expected to look beyond themselves and serve others at some point within the week. This may be through the CCF or through an array of projects involving the local community, such as assisting in local schools, creating events for the elderly and supporting local charities. Such service is seen as integral to the students overall personal development and social awareness.

Study facilities are excellent, both in the Houses and in the impressive award-winning Library. The Sixth Form Centre gives students a chance to relax, drink coffee, read the papers, discuss issues with friends and study in a less formal atmosphere.

Epsom recognises that the options for students after A' levels are becoming increasingly diverse and that the traditional route of studying for a degree at a British university, while still right for many, is not the best option for all. The Careers Department, based in the Sixth Form Centre, has experience in guiding students to American universities and can help students explore growing possibilities in the world of work.

Overall the Sixth Form at Epsom College gives every student the opportunity to make new friends, develop new skills and take on new responsibilities – as a Prefect, a member of the Sixth Form Committee or in a leading role in sport, drama, music or in any of a huge range of extra-curricular activities.

- The three year average for A*/B grades is over 80%

The majority of students in the Sixth Form choose four AS subjects. Many opt to supplement their academic programme (and, of course, their UCAS application) with an additional course. Possible additional courses include: Critical Thinking AS, the Extended Project Qualification, Young Enterprise and the Securities & Investment Qualification. University admissions preparation courses for SATs, BMAT, LNAT and Oxbridge are undertaken by a large number of students.

ART

HEAD OF DEPARTMENT – MRS K H P LENHAM

- Outstanding results achieved
- Opportunities to develop specialist practical skills, working with Artists
- An ideal subject to add creative breadth to your A Levels
- Portfolios carefully planned for those taking Art further to Higher Education

COURSE OUTLINE AND SPECIFICATION DETAILS

The structure of the course is a logical continuation of GCSE Art. The course is made up of the Advanced Subsidiary (AS) and the A Level (A2). We follow the OCR GCE Fine Art (Endorsed) Specification at AS (Code H161) and at A2 (Code H561).

The AS is both a stand-alone qualification, and the first part of the A Level qualification. Throughout the Lower Sixth year pupils produce a Coursework Portfolio, that reflects their continued practical development and also encourages independence and far greater personal direction. This body of work accounts for 60% of their AS mark. The AS course concludes with the Controlled Assignment, which makes up the final 40% of their AS mark. The mark that they achieve at AS then makes up 50% of their final A Level mark. It is not possible to achieve a full A Level without first taking the AS.

The A2 year is an exciting conclusion to the A Level course, once again producing a Coursework Portfolio and culminating with the Controlled Assignment. At this level pupils largely initiate their own course of study, building on personal strengths, refining creative thinking and practical techniques, to an impressive level.

ASSESSMENT OBJECTIVES

AO 1

Develop their ideas through sustained and focused investigations informed by contextual and other sources, demonstrating analytical and critical understanding.

AO 2

Experiment with and select appropriate resources, media, materials, techniques and processes reviewing and refining their ideas as their work develops.

AO 3

Record in visual and/or other forms, ideas, observations and insights relevant to their intentions, demonstrating an ability to reflect on their work and progress.

AO 4

Present a personal, informed and meaningful response demonstrating critical understanding, realising intentions and where appropriate, make connections between visual, written, oral or other elements.

These assessment objectives are weighted in % as follows:

	AS	A2
AO 1	30%	20%
AO 2	30%	20%
AO 3	20%	30%
AO 4	20%	30%

ART

DEPARTMENT AIMS AND EXPECTATIONS

Art A Level develops intellectual, imaginative, creative and intuitive powers. It encourages pupils to investigate, analyse and experiment, developing practical, technical and expressive skills, aesthetic understanding and critical judgement. Studying Art at A Level encourages an independent mind, in relation to developing personal ideas, refining intentions and outcomes. Pupils will gain experience working with a broad range of media, including traditional and new media and technologies.

The course will also develop an interest in, enthusiasm for, and enjoyment of art, craft and design and an understanding of the inter-relationships between art, craft and design processes, historical traditional and contemporary.

Pupils are advised and encouraged to visit relevant Galleries. They will also have the opportunity to work with the resident Artist and attend workshops and lectures to support their studies.

All AS/A2 pupils have their own studio space, so that they are able to work in their own time. Pupils are allocated six periods each week and can also make use of Study periods and any available time that does not interfere with other College commitments.

Pupils are expected to attend extra sessions each week in lieu of evening preps, these extra sessions should be structured in consultation with the teacher responsible and should not have precedence over other prioritised College commitments. The recognised prep, allocation per AS/A2 subject in the Sixth Form is about **4 hours** per week.

COURSE REQUIREMENTS

A pass at GCSE Art is required at A* or A. Part of the course involves research and a written dissertation, therefore candidates will be expected to have a secure knowledge of written and spoken English.

HIGHER EDUCATION AND CAREER GUIDANCE

Pupils wishing to enter Further Education specialising in Art are carefully counselled with up-to-date information. Close contacts with leading Art Colleges are maintained. Life Drawing classes are offered to pupils as they prepare portfolios and interview techniques carefully monitored. In recent years all Art Foundation applicants have been successful in gaining places at their chosen College. Pupils from Epsom have also been accepted by the Royal College of Art, for Post-Graduate Courses. Such places are extremely competitive on an international level.

Architecture applicants are also prepared and their portfolios thoughtfully put together. Over the past few years several candidates from Epsom have entered Cambridge and other prestigious schools of architecture.

The Assessment Objectives that provide the framework for the Art A Level course, ensure that it is a diverse and demanding subject; practically and academically. The course also encourages risk taking and importantly a creative approach to problem solving which is essential for real success in all areas of study. As a result unless there are specific requirements for a particular course, most Universities accept and many welcome a high grade in A Level Art, as one of three A Levels offered. It is essential for those intending to study Architecture, Fine Art, and many Design courses, and can be usefully combined with both arts and science subjects. AS Level Art provides an excellent and attractive method of adding breadth to a totally science based A Level course or adding a different cultural dimension with a Modern Language, History or English.

Further details about the Art School and the Course we offer are available from: Mrs Katie Lenham (Head of Department) e-mail: khpl@epsomcollege.org.uk

BIOLOGY

HEAD OF DEPARTMENT – MR W L S KEAT

- Excellent facilities
- Teachers specialising in different fields
- Rich history of preparing Applicants for Medicine

Biology at Epsom has been at the core of the College since its foundation in 1855 due to the strong links it enjoys with the Royal Medical Foundation. In the past 158 years Biology has changed almost beyond recognition as the boundaries of what is possible have been pushed further than could have been believed. As we are now able to delve well beyond the microscopic and manipulate genes to create transgenic organisms, classrooms and teaching methods have changed to accommodate this. Biology at Epsom enjoys excellent state of the art resources such as genetic engineering machinery including a

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PCR machine, along with a wealth of natural history specimens due to the presence of our very own museum. Teaching is conducted by a team of 7 very well qualified subject experts from a range of biological interests including cancer and entomology.

A level Biology is a demanding course that aims to develop the intellectual and practical abilities needed to understand the Biological and Medical Sciences as they exist today. It suits students who are able to rapidly assimilate large volumes of factual information and who are both self-disciplined and organised with a genuine interest in the subject. The AS and A2 courses follow the AQA syllabus and are composed of 3 units each; 2 theory based written components and 1 practical unit which is assessed through either a centre marked or externally marked practical assessment. Embedded in both courses is practical work which involves both lab work and fieldwork at A2 to encompass the ecological nature of the A level course. Students have the opportunity to study the following at AS and A2.

The Lower Sixth year extends the basics of cell function and structure below the 'thousandth of a millimeter' scale which seems to be the limit at GCSE. In addition to this, we study biological systems such as the digestive and immune, along with associated diseases (COPD for example). Unit 2 delves further into the world of DNA form and function, genetics at both cellular and population level whilst introducing students to classification and causes of variation. Ecology is also introduced at this point in preparation for the A2 fieldwork. At A2 level, students are introduced to the complex and wonderful world of photosynthesis and respiration in which the complex biochemical reactions are dissected and reassembled to make sense of the processes. It is also here that we start to look at population genetics and statistics in more depth and employ statistical tests to confirm or reject ecological hypotheses. The workings of muscle and the nervous system along with homeostatic mechanisms and genetic engineering are some of the final concepts covered as the A2 course nears its end.

Throughout the Sixth form, the Biology department provides plenty of opportunities for delving beyond the A level syllabus through the Biology Extension sessions, visiting speakers and also visits to laboratories and sites of biological interest.

BACKGROUND

Students coming into studying biology at A level will be well served with an A* or A at IGCSE/GCSE and a good grounding in mathematics and chemistry is desirable due to the biochemistry and calculations throughout the courses. There is an extensive list of suggested reading for A level students and there is an expectation that all students will read around the subject using both books from this list along with journals that are available in the library to reinforce material covered in lessons.

Biology at AS and A level provides an excellent grounding for any student wishing to pursue a Biological or Medical Science at university but can equally be studied purely for interest as it complements a wide variety of subjects.

BUSINESS MANAGEMENT

HEAD OF DEPARTMENT – MR P J GILLESPIE

- A dynamic, contemporary and relevant subject
- Outstanding external exam and value added results
- Well taught and delivered in a well equipped and resourced department

INTRODUCTION

In recent years there has been an increase in the amount of business coverage in the media. Issues such as the credit crunch, supermarket dominance, China's economic expansion, the enlargement of the EU, falling share prices and the aggressive marketing of junk food to children. These are Business Management issues and make this subject one of the more varied, diverse and interesting available. The course structure is based on management activities from financial planning to motivating workers.

REQUIREMENTS AND SUBJECT COMBINATIONS

To be numerate is an advantage, but not a prerequisite of the course. The main requirement is an interest in business affairs and a desire to find out how businesses operate. Business Management can combine with virtually any combination of subjects. Popular combinations include ICT, Mathematics, Geography, History, Economics and Biology.

Business Management falls within the Economics and Business Management Department. Three sets of students will be studying the subject in the Lower Sixth and three sets will continue at A2 level in the Upper Sixth. Business Management

is a very rewarding, challenging and interesting subject. There are around 70 students studying this subject in the Sixth Form. Retention rates from AS to A2 are high with well over 90% of students continuing to A2.

COURSE OUTLINE AND SYLLABUS DETAILS

The course followed is the new AQA GCE Business Studies (2130) specification

The objectives of the specification is to: enable candidates to focus on the dynamic nature of the contemporary business world, provide opportunities for research into topical business issues, offer opportunities for the development and application of a full range of academic skills.

The AS specification has 2 units:

Unit 1: Planning and Financing a Business – Starting a Business

Financial Planning – Key financial concepts needed to start a business including: sources of start up finance, planning cash flow, contribution and break even.

Written Paper: 1 hour (60 marks)

Unit 2: Managing a Business

People – Communication; motivation; recruitment; HR planning.

Operations Management – adding value; quality; customer service.

Finance – improving cash flow, measuring profit, improving profitability.

Marketing and Competition – planning; 4 'P's; analysing the competitive environment.

Written Paper: 1 hour 30 minutes (80 marks)

The A2 specification has 2 units:

Unit 3: Strategies for Success

Financial Strategies and Accounts – financial information, measuring performance, financial decisions.

Marketing Strategies – analysing markets, devising marketing strategies.

Operations Strategies – location, R & D, improving operational efficiency.

Human Resource Strategies – workforce planning, measuring performance, adapting organisational structures, employee relations.

Written Paper: 1 hour 30 minutes (80 marks)

5 questions focusing on measuring business performance and assessing appropriate functional strategies to achieve success. Unseen case study with a range of numerical data.

Unit 4: The Business Environment and Change

External Influences – the effects of changes in the economic, political, legal, social and ethical; corporate culture; risk strategy; change management and responses of organisations.

Leadership, Corporate Culture, Ethics – leadership styles, role of leaders in responding to change, corporate culture.

Managing Change – planning for change, corporate strategies, managing change, decision making.

Written Paper: 1 hour 30 minutes (80 marks)

RESOURCES

A variety of teaching strategies are used by the nine members of the department. Five teachers are qualified to teach Business Management. These range from the traditional delivery of theory, case study material, videos and the use of contemporary business issues.

The Department is based in the Mackinder building where five classrooms are designated for the teaching of Economics and Business Studies. One of these rooms has a bank of computers for use by students beyond lessons. All classes are fully equipped with electronic Whiteboards and the Department has a set of 16 laptops for student use during lessons.

THE FUTURE – HIGHER EDUCATION AND CAREERS

Naturally, many students take this subject to degree level and enjoy careers in many areas of business from Accountancy, Management and Law. Around 70% of last year's students went on to study a Business related degree at the following Universities: Bath, Exeter, KCL, Cardiff, Brunel, Manchester, Liverpool and Nottingham.

However, it is a very useful subject to study even if the student is not considering a business-orientated career.

Come and join us!

CHEMISTRY

HEAD OF DEPARTMENT – MRS T M MULLER

- Outstanding results
- Taught by a highly experienced and established team of chemistry specialists
- High level of practical work in modern and well-equipped laboratories
- The central subject amongst the three sciences and fundamental to medicine

THE AS/A2 QUALIFICATION

The course followed is a traditional and academic one that tends to suit students with strong scientific and mathematical skills. The course helps students gain an excellent understanding in the topics covered and requires them to work with practical accuracy and both numerical and written precision.

Edexcel Advanced Subsidiary GCE in Chemistry (Code 8CH01) is the specification followed by the AS candidates. Students will be internally assessed on 3 practical skills over the course of the academic year and will be given the opportunity to be assessed twice on each type of task. The best marks from each skill will be selected and will make up 20% of their overall AS total. The students will take both of the unit exams in June, at the end of their academic year. Each theory exam makes up 40% of their AS total. Students are taught by two teachers, the first of which will focus on the teaching of Atomic Structure, Bonding and aspects of Organic Chemistry. The second teacher will cover the Physical and Inorganic Chemistry and be responsible for the completion and collation of the assessed practical work.

Edexcel Advanced GCE in Chemistry (Code 9CH01) is the specification followed by the A2 candidates in the Upper Sixth from September 2009. Students will again be internally assessed on 3 practical skills over the course of the academic year and will be given the opportunity to be assessed twice on each type of task. The best marks from each skill will be selected and will make up 20% of their Upper Sixth marks but 10% overall in their A2 total. Students will take both Unit 4 and Unit 5 in June. Students are again taught by two teachers and at least one of which is usually the same as in the Lower Sixth. The first teacher will cover further aspects of Organic Chemistry, the testing of which is synoptic, and the assessed organic practicals for A2. The second teacher will cover the Physical and Inorganic Chemistry and be responsible for the completion of the majority of the assessed practical work and its collation.

The summary of the Assessment Scheme, the exam weightings in terms of their overall contribution to the final A2 score and their timings are shown below.

Exam	Type of assessment	Avail.	% of GCE	Timing
AS	Unit 1: External written	May	20%	1 hour 15 mins
AS	Unit 2: External written	June	20%	1 hour 15 mins
AS	Unit 3: Internal	June	10%	Throughout year

Exam	Type of assessment	Avail.	% of GCE	Timing
A2	Unit 4: External written	June	20%	1 hour 40 mins
A2	Unit 5: External written	June	20%	1 hour 40 mins
A2	Unit 6: Internal	June	10%	Throughout year

WHY STUDY GCE CHEMISTRY?

This course will try to give you the skills and understanding to make decisions about the way chemistry affects your everyday life by applying concepts into contemporary areas of chemistry.

In addition, a GCE in Chemistry allows you to develop a range of generic skills requested by both employers and universities. For instance, a successful GCE level chemist will be an effective problem-solver and be able to communicate efficiently both orally and with the written word. Handling data will be a key part of your work, allowing you to demonstrate information retrieval skills as well as numeracy and use of ICT. You will build up a range of practical skills that require confidence and accuracy as well as developing a firm understanding of health and safety issues. As chemistry is a subject in which much learning stems from experimental work it is likely that you will need to work effectively as part of a group, developing team participation and leadership skills. As you become more skilled you will take responsibility for selecting appropriate qualitative and quantitative methods, recording your observations and findings accurately and precisely as well as critically analysing and evaluating the methodology, results and impact of your own and others' experimental and investigative activities.

CHEMISTRY

SUBJECT COMBINATIONS

The normal subject combinations are:

1. **Chemistry, Maths, Physics and another** – this combination provides the greatest freedom of higher education and career choice in the Physical Science/Engineering field. Double Maths is recommended for Oxbridge physical scientists, DT for a material scientist or a language for one wishing to work or study abroad.

2. **Chemistry, Biology, Maths and another** – this would suit Biological scientists and aspiring Medics. Physics would complete the scientific group, Philosophy would support ethics and essay writing, Economics could be relevant to budgeting/ NHS fund holding and Latin is often popular with interviewers.

3. **Chemistry, Maths, Economics and another** – this would suit those going towards businesses in and the management of chemical industries.

Other combinations also work well, particularly where other related subjects support or complement Chemistry. Only the most able of students tend to be successful when this subject is taken as a stand-alone option or unrelated fourth choice by those on the arts side.

HIGHER EDUCATION AND CAREERS

A2 level Chemistry is considered an excellent all round discipline and is a required/preferred subject for over 30 different subjects at University. A good grade in A level Chemistry illustrates good mathematical skill, an excellent memory and the ability to think logically.

Chemistry at University becomes increasingly mathematical, so anyone wishing to study Chemistry further is strongly advised to have taken Maths to A2. Some courses require students to take a mathematical component, such as Oxford University, where chemistry undergraduates must study Maths and pass an exam on it at the end of their first year.

A good grade at A2 level is a necessary requirement for the study of Medicine, Dentistry, Veterinary Science, Geology and Environmental Sciences. Students aspiring to study medicine at Oxford, Cambridge and University College, London are currently required to sit exams in Numeracy, Science (Biology, Chemistry and Physics) and Ethics. Students needs to be able to write a well structured and argued essay for their third paper and should consider their fourth AS choice carefully, if this is one of their goals.

Unit 1 – The Core Principles of Chemistry

- Formulae, equations and amounts of substance
- Energetics
- Atomic structure and the periodic table
- Bonding
- Introductory organic chemistry – alkanes and alkenes

Unit 2 – The Application of the Core Principles of Chemistry

- Shapes of molecules and ions
- Intermediate bonding and bond polarity
- Intermolecular forces
- Redox
- The periodic table – groups 2 and 7
- Kinetics
- Chemical equilibria
- Organic chemistry – alcohols and halogenoalkanes
- Mechanisms
- Mass spectra and IR
- Green chemistry

Unit 4 – General Principles of Chemistry I

- How fast? – rates
- How far? – entropy
- Equilibria
- Application of rates and equilibrium
- Acid/base equilibria
- Further organic chemistry – chirality, carbonyl compounds, carboxylic acids and their derivatives
- Spectroscopy and chromatography

Unit 5 – General Principles of Chemistry II

- Redox and the chemistry of the transition metals
- Organic chemistry – arenes, nitrogen compounds and synthesis

COMPUTING

HEAD OF DEPARTMENT – MR T C V THOMAS

- A challenging and exciting technical subject
- Emphasis on programming, software development and networking
- Superb preparation for all science/technology disciplines at university
- Highly regarded by university admissions tutors
- Combines well with Mathematics, Science, Design Technology, Business Studies and Economics

INTRODUCTION

One of the most important changes of the last 30 years is that digital technology has transformed almost everyone into an information worker. The use of computers is now central to all aspects of industry, commerce, education and leisure. The skills you will learn on this course are directly relevant to almost all modern vocations, which is why Computing A level is so highly regarded by employers and university admissions tutors alike. This is not a soft subject! Whilst many technological industries have declined in the United Kingdom in recent years, Computing and Information Technology are becoming ever more important. If you decide to go one step further and make your career in this field, you will find no shortage of rewarding employment opportunities; with the current worldwide demand for computing specialists, the potential is very exciting indeed.

ENTRY REQUIREMENTS

There are no special entry requirements for this course. Many students will have studied Information Technology at GCSE level, but it is not a prerequisite; this new syllabus assumes no prior knowledge of Computing or ICT. More important is the ability to think logically, and whilst there is not a great deal of mathematics in the course, it is likely to appeal to students who are good at maths or science. In the past many of our students have successfully combined the subject with Economics, Geography, Business Studies and DT.

COURSE OUTLINE

This course is designed to develop an understanding of the fundamentals of computer science and to provide the knowledge and skills required for participation in an evolving computer-dependent society. The emphasis is on studying the principles of computation in order to solve real-life problems; there is no particular emphasis on hardware or proprietary technologies. There is a general focus on 'computational thinking', which is a kind of reasoning that is used by both machines and humans, involving abstraction and decomposition. Thinking computationally is an important life skill, directly applicable in all vocations.

There is a clear distinction between this course and "ICT" that is offered at some other institutions. Computing is a somewhat more rigorous and technical subject (in some quarters it is known as 'Computer Science'), whilst ICT focuses on the practical application of the technology, and is considered by many universities to be a less academic and therefore less attractive option.

The new syllabus that we are following has been designed for students who wish to go on to any higher education course or employment where a knowledge of Computing would be beneficial – in particular medicine, law, business, politics or any science, technology or engineering discipline. It is endorsed by all of the top universities, including Oxford and Cambridge, as a very acceptable entry qualification.

SYLLABUS DETAILS

We will be following AQA syllabus 2511 *(you can see full details on the Web at http://www.aqa.org.uk/subjects/ict-and-computer-science/a-level/computing-2510)*. There are two modules in the first year: Unit 1 is assessed by practical examination and Unit 2 by traditional written examination. In the second year, Unit 3 is assessed by written examination, and Unit 4 is a practical project.

Unit 1: Problem Solving, Programming and Data Representation.

Topics include:

- Introduction to the principles of computation
- Top-down Design
- Decision tables
- State transition diagrams
- Programming and program design
- Binary
- Information coding schemes
- Systems development life cycle

Unit 2: Computer Components, the Stored Program Concept and the Internet.

Topics include:

- Software and systems
- Logic gates
- Boolean algebra
- Processor architecture
- Input/output devices
- The Internet
- HTML coding
- Legal, ethical, economic & social issues

COMPUTING

Unit 3: Problem Solving, Programming, Operating Systems, Databases and Networking.

Topics include:

- Algorithm design
- Turing machine, universal machine
- Backus Naur form
- Reverse Polish notation
- Data structures & associated algorithms – Lists, queues, stacks, linked lists, graphs, trees
- Operating systems
- Databases, including Entity-Relationship modelling, normalisation and Structured Query Language
- Networking & communications

Unit 4: The Computing Practical Project

The project provides an opportunity to consolidate and build upon the theoretical and practical elements of the other parts of the course. You will embark on a significant analysis and programming task of your own choosing which will develop and test your analysis, programming and problem solving skills. This exercise is quite unlike the practical projects you may have tackled for GCSE ICT; it is altogether more interesting, demanding and enjoyable. Most students finish the course saying that the practical project was the most fulfilling and inspiring part of the whole course.

HIGHER EDUCATION AND CAREERS

After leaving school, many computing students continue with the subject at university on courses such as Computer Science or Software Engineering. Those with an interest in business and commerce will find no shortage of degree courses that focus on Business Computing, or courses that combine Computing/IT with Business and Management studies. Students on the first year of such courses invariably report that they enjoy a significant advantage over their peers who did not take the subject at school.

Computing A level is also a popular choice for students wishing to progress to degree courses in mathematics, science and engineering, particularly in the aeronautical, mechanical, electrical, electronic engineering and building services fields. It is also a very acceptable option for those wishing to study a wide range of other subjects, including Geography, Business Studies, Medicine and Law.

Students also have a wide choice of careers they can follow, including banking, finance, the public services, telecommunications, the electronic industries or the specialist computer field.

SUBJECT COMBINATIONS

Computing combines well with a wide range of subjects, but in the past the most popular combinations have included Mathematics, Physics, Chemistry, Biology, Business Studies, Economics and Design Technology.

CRITICAL THINKING

HEAD OF DEPARTMENT – MRS M ODENDAAL

A subject designed to stretch and challenge!

This subject helps students to:

- Analyse and evaluate information
- Decide whether evidence is credible
- Solve problems more easily
- Communicate more effectively
- Think more methodically
- Produce a cogent and logical argument.

It is also a very useful subject for anyone intending to do an EPQ since critical skills are an essential part of a successful EPQ.

It is difficult to get a top grade in Critical Thinking, and students who do not have a strong work ethic are advised not to take it.

COURSE OUTLINE

There will be two fifty minute lessons per week, and these will involve learning new ideas, intense discussion and translation of these into well developed and logically written answers.

The OCR Syllabus (H052) is skills based and has minimal content. It teaches the art of argument analysis and evaluation, using the tools of reason and logic. The student will gradually become much more aware of issues which underlie the obvious, and will consequently become much more able to process information effectively.

The AS course has two modules, 'Introduction to Critical Thinking (50%) and 'Assessing and Developing Argument' (50%). These are assessed by written examinations only and consist of short structured questions and a multiple-choice

CRITICAL THINKING

section. Both exams will be written in the May of the Lower Sixth year.

TEACHING METHODS

A variety of teaching methods are employed, but since content is minimal, a necessary component of the lessons is enthusiastic participation by students, who are encouraged (within reason!) to disagree with the status quo. Since the subject involves a written exam, an essential part of the course is learning to write cogently, and in depth, therefore work outside of lessons is a necessary part of the course. Prep will be set each week and it must be completed to a high standard.

REQUIREMENTS AND SUBJECT COMBINATIONS

There are no prior knowledge requirements to this course; anyone wishing to improve their skills can do it, however it should be remembered it is one of the most difficult subjects and is it is very difficult to gain A grade. Students will be able to opt either for this subject or for Young Enterprise. Entry to YE is limited so anyone wishing to take both can enter for both and then decide once applications to YE are complete at the beginning of Michaelmas term in Lower Sixth.

THE FUTURE - HIGHER EDUCATION AND CAREERS

Although AS CT will not form part of a university offer and is counted as a fifth AS it is definitely not a soft subject: universities such as Cambridge are beginning to recognise that it is difficult – whilst results at Epsom are consistently excellent, only 7 or 8% of the papers nationally are awarded an A grade. Success at AS level will enhance an application to any university and will provide a competitive edge. Participation in these classes should also help students who may wish to take the additional exams, such as BMAT, TSA or LNAT, which are now being demanded by top universities in subjects such as Medicine and Law.

It is worth noting that research done by OCR has clearly shown that students who do Critical Thinking improve their A levels by one whole grade.

DESIGN TECHNOLOGY – PRODUCT DESIGN, 3D DESIGN

HEAD OF DEPARTMENT – MISS A M R WICKHAM

The Design Technology Department at Epsom College has the great advantage of being able to offer students a well equipped facility with excellent technical support.

INTRODUCTION

Design Technology AS/A2 is similar in outline to that of the GCSE Design Technology.

For those who are new to the subject, having not studied it at GCSE, it requires the following:

- Enthusiasm for and an understanding of all aspects of Design in our Society
- An understanding of materials and of the tools, machinery and processes used to manufacture the products around us and how this affects us all
- An enquiring mind and an ability to look beyond the existing boundaries of current Design and Technology
- The ability to use information and communications technology (ICT) to enhance your designs
- Finally, you need a passion to build the products you have designed

Currently we follow the Product Design, 3D Design, specification, offered by AQA, which gives students an excellent opportunity to develop their interest in a wide range of design-based areas. It also provides excellent preparation for those who wish to study Product, Interior or Industrial Design, Architecture, the range of Engineering disciplines or associated subjects at a higher level. Students not wishing to progress into these areas, will undoubtedly find the skills that they develop over the course useful in future pursuits.

In addition to the 50% emphasis on examinations, students will also be able to resolve practical problems into realistic, viable solutions and pursue more individual design interests through the two designing and manufacturing coursework elements.

Design and Technology is concerned with recognising and meeting needs through the application of scientific and other forms of knowledge, the use of physical resources and the creative process essential to see potential and alternative solutions.

THE COURSE IS DELIVERED THROUGH THREE AREAS OF STUDY

Materials and Components: candidates will be given the opportunity to work and study a variety of resistant materials,

including smart materials, so they understand the working characteristics, physical properties, cost, availability and environmental consequences, which influence the choice of materials in design situations.

Design and Market Influences: Candidates should develop an understanding of the broader perspective of the designed world. They will be encouraged to apply personal judgements and appropriate criteria in the appraisal of manufactured objects and systems. These conclusions should influence the candidates in their approach to designing and manufacturing products that meet specific needs of identified users.

Processes and Manufacture: candidates need to develop a broad knowledge of the manufacturing systems used to make and finish materials used in the production of commercial products. They will be encouraged to explore practical applications of processing methods as appropriate to the products they design.

ENTRY REQUIREMENTS

At least a grade B at GCSE preferably in Resistant Materials.

AS/A2 PRODUCT DESIGN OUTLINE

Product Design is about Three Dimensional Designs.

AS Unit 1: Examination – Materials, Components and Application.
AS Unit 2: Coursework – Learning through Designing and Making.
A2 Unit 3: Examination – Design and Manufacture Synoptic Paper.
A2 Unit 4: Coursework – A single substantial designing and making activity.

ASSESSMENT

AS Examination

Unit 1 – Materials, Components and Application.
50% of the total AS, 25% of A Level
2 hour written examination
Section 1: compulsory limited response questions.
Section 2: choice of one question from two.
Section 3: one compulsory question.

Unit 2 – Learning through Designing and Making
50% of the total AS, 25% of A Level
Coursework – approx. 50 hours
Coursework may take a number of forms; a single design and make project, two smaller projects and/or a portfolio of work.

A2 Examination

Unit 3 – Design and Manufacture
25% of A Level 2 hour written examination
Two sections. Candidates answer one question from 3 in each section plus a final question from either section.

This written paper will include sufficient synoptic assessment to test the candidates' understanding of the connections between the different elements of the subject and their holistic understanding of the subject.

Unit 4 – Design and Making Practice
25% of A Level Coursework – approx. 60 hours
Candidates submit evidence of a single, substantial designing and making activity.

HIGHER EDUCATION AND CAREERS

After AS/A2 you can then consider the following Engineering or Design courses that are available at University and Art Colleges to study at degree level:

- Design disciplines, including Industrial, Product, Automotive, Furniture
- Architecture
- Engineering disciplines, including Mechanical, Structural, Design, Civil
- Computer Aided Design
- Design Management and Marketing
- Course looking to the problems of the future such as environmental issues and sustainability

These professions rely on an ability to 'think outside the box', problem solve, improve existing designs, design and develop ideas as well as an understanding of material science, technology, construction processes and marketing.

Design is about working within limits – costs, materials, people tastes, sizes, all connected to the environment in which we live, it is fun and it is exciting. You can actively look to improve people's lives.

SUBJECT COMBINATIONS

Design and Technology offers you an opportunity to gain personal satisfaction and a positive experience from working with a variety of materials. The practical problem solving processes in this subject encourages your independent learning skills, creativity and innovation. It therefore links well with Mathematics and Physics; Art and Theatre Studies; Business Studies and Economics; ICT and Geography and History.

DRAMA & THEATRE STUDIES

HEAD OF DEPARTMENT – MISS K CHANDLEY

- An academic subject that consistently delivers 100% A-B success
- A practical and theoretical subject that explores modern and traditional works
- The life blood of the course is participation in professional workshops, residencies and live theatre review, working with renowned international theatre practitioners

AS/A2 DRAMA & THEATRE STUDIES (AQA)

INTRODUCTION

Theatre Studies is an exciting, rewarding course which develops students' appreciation and understanding of theatre's social, cultural and artistic function in an active forum, where they can experiment as directors, actors and designers.

ENTRY REQUIREMENTS

Theatre Studies forms a natural progression from Drama GCSE, and whilst GCSE Drama is not a pre-requisite of the course, it is desirable. Grade B or above in English is a pre-requisite of the course, as the ability to write analytically and with flair is vital to any candidate's success.

The other requirement is a passion for theatre arts coupled with the maturity to work with shared responsibility in the practical exams each year, both of which demand excellent time management and academic discipline from each member of the team.

COURSE OUTLINE

There are two papers at AS and A2 levels: one practical and the other written, though we approach the work practically. Students study set plays each year in close detail, developing a confident knowledge of the historical, cultural and political influences of the day. The AS text studied next year will be Ibsen's 'A Doll's House'; at A2 level, the texts are Moliere's 'Tartuffe' and either Berkoff's 'The Trial' or Wertenbaker's 'Our Country's Good'. Students also gain an insight into the theories and practice of three theatre practitioners and companies, whose ideas and work have transformed the face of modern drama.

Students are examined in a written paper each year on their response to and understanding of theatre styles and genres and this takes the form of theatre view at AS and a synoptic analysis ands direction of 'The Trial' set text at A2 level. Students are encouraged to make links between Artaud, Stanislavski and Brecht's theories and their own performance exams, consisting of a scripted performance at AS and a devised performance at A2. For each practical exam, students have to research and apply a modern theatrical practitioner's influence on their work as directors, designers and performers. We have developed close links with Complicite and Shared Experience, who have delivered physical theatre workshops at AS level and will help us devise the practical work at A2 level with a residency at the College. We deliver an extensive course focusing on expressionism in the practical, set text and live theatre work.

SYLLABUS DETAILS – COURSE STRUCTURE AND ASSESSMENT

AS: 1241

Unit 1: DRAM1 – Live Theatre Production Seen and Prescribed play (60% of AS; 30% of A2)

1 hour and 30 minutes written examination:

Section A: response to live theatre seen on the course
(1 question to answer)

Section B: study of one set play: Ibsen's 'A Doll's House'
(1 question to answer)

Unit 2: DRAM2 – Presentation of an extract from a play (40% of AS; 20% of A2)

Performance by a group of an extract of a published play, supported by written notes

A2: 2241

Unit 3: DRAM3 – Prescribed plays (30% of A2)

2 hour written examination:

Section A: study of set play: Moliere's 'Tartuffe'
(1 question to answer)

Section B: study of set play: Berkoff's 'The Trial'
(1 question to answer)

Unit 4: DRAM4 – Presentation of Devised Drama (20% of A2)

Performance by a group of a devised drama, supported by written notes

HIGHER EDUCATION AND CAREERS

There are many varied courses for reading Theatre Studies at Universities, as well as opting for Drama schools. Besides training to go into performance, direction, design or technical careers in theatre, television, radio and film, Theatre Studies is an excellent qualification to have for entry to any creative or analytical degree course. It is also helpful for those wishing to enter courses such as Law, Medicine, Education and the Social Sciences, as it develops effective people skills and communication.

DRAMA & THEATRE STUDIES

Between 20 to 30% go on to study Drama at University or Drama Schools. Many, however, use their high result in Theatre Studies to secure entrance to other courses, including Psychology, Economics, Geography and English. Students with high AS grades in Theatre Studies have gone on to study Veterinary Science and Medicine.

We take pride in our record with Oxbridge candidates, where students applying to Cambridge gained entrance to the college of their choice to continue their study of Drama. Our most recent graduate gained a first from Cambridge and is now studying to teach Drama and English at secondary level.

SUBJECT COMBINATIONS

If you enjoy English, History, Politics, RS and Philosophy, you will enjoy the essay writing challenges of the course and the analytical skills you will develop in set text study and theatre research. If you are highly creative and wish to pursue a career in theatre design or performance, Art, Music and DT will be good subject combinations to choose. Theatre Studies is a subject that encourages you to be an individual and think for yourself within a creatively challenging forum. Before opting for Theatre Studies, however, you should consult the Head of Drama to ensure it's the right course for you in relation to your other subject choices.

ECONOMICS

HEAD OF DEPARTMENT – MR P J GILLESPIE

- An interesting, challenging and relevant subject
- Well taught within a well resourced department
- A thriving Economics and Business Society that attends regular talks
- The most popular A level subject at Epsom

INTRODUCTION

Economics referred to by Thomas Carlyle as 'the dismal science'. Indeed many consider it to be just about interest rates, inflation and chancellors. However, Economics is relevant to all aspects of life and presents us with an understanding of human behaviour. It is a motivating factor in much of what you see on the front pages of all the newspapers, not just the Financial Times. Economics is an incredibly wide-ranging subject where an issue is never black and white and there is always another way of looking at things. Economics provides you with the knowledge and insight necessary to understand the impact of developments in business, society and the world economy. It enables you to understand the decisions of households, firms and governments based on human behaviour, beliefs, structure, constraints and need.

Economics is part of the Economics and Business Management Department at Epsom College. It is based in the Mackinder Building.

REQUIREMENTS AND SUBJECT COMBINATIONS

It is a distinct advantage for embryonic Economists to be literate and numerate. The ability to express oneself fluently and cogently is a distinct advantage for examination purposes even though essays are only set in A2 exams. However, the main requirement is to have an interest in political and business affairs. As a Social Science, Economics is versatile. Economists are drawn from a wide spectrum of subjects. There are no problems concerning the compatibility of subjects. Those students who are considering reading Economics at University are strongly advised to consider studying A Level Mathematics, but this is not a prerequisite for studying A level Economics. Popular past combinations have included Mathematics, Physics, Government and Politics, Geography, Business Management and History.

COURSE OUTLINE AND SPECIFICATION DETAILS

From 2008, the department will be following the OCR GCE Economics HO61 Specification at AS and A2 level. The main aims of the specification are to:

- develop an interest in, and enthusiasm for, the study of the subject
- appreciate the contribution of economics to the understanding of the wider economic and social environment
- develop an understanding of a range of concepts and an ability to use these concepts in a variety of different contexts
- use an enquiring, critical and thoughtful approach to the study of economics and develop the ability to think as an economist

AS – Unit F581: Markets in Action

The reasons for individuals, organisations, and societies having to make choices

- Competitive markets and how they work
- Market failure and government intervention

ECONOMICS

Unit F582: The National and International Economy

Aggregate demand and aggregate supply and their interaction

- Government economic policy objectives and indicators of national economic performance
- The application of macroeconomic policy instruments; and the international economy

Candidates are required to answer questions based on a particular theme or case study, including some short-answer and some data-interpretation questions, plus one question which requires an answer written in extended continuous prose. Both exams are one and a half hours long.

The 2 A2 modules are

Unit F584: Transport Economics

- Transport, transport trends and the economy
- Market structures and competitive behaviour in transport markets
- Market failure and the role of intervention in transport markets
- Transport economics and government policy

The exam is two hours long and is assessed via a data response and an essay.

Unit F585: The Global Economy

- Macroeconomic performance
- Trade and integration
- Development and sustainability
- The economics of globalisation

The exam is two hours long and is assessed via pre-release material and 5 compulsory questions.

RESOURCES

A variety of teaching strategies are used by the nine members of the department. These range from the traditional delivery of theory, case study material and DVD's.

The Department is based in the Mackinder building where five classrooms are designated for the teaching of Economics and Business Studies. One of these rooms has a bank of computers for use by students in lessons. All rooms have an LCD projector and an electronic whiteboard.

The Department has an excellent examination record. Last year's leavers from the Department went to a wide range of institutions including: Bristol, UCL, York, Cardiff, Birmingham, Nottingham.

As regards Oxbridge, many Epsomians gain places to read Economics at Cambridge or PPE or Economics & Management at Oxford. Generally one or two students per year secure a place and this was achieved during 2010.

INTRODUCTION TO INVESTMENT QUALIFICATION

This is a new subject introducing students to:

- an overview of the finance industry
- an understanding of financial assets
- the structure of financial regulation
- the importance of finance in a global context

INTRODUCTION TO INVESTMENT QUALIFICATION

This course is being offered as an extra for students in the Upper Sixth. It is taught within the Economics and Business Management department with guidance from the awarding body the Securities and Investment Institute (SII). The course was originally designed, and is still used, as an introductory course for all new graduates in the Financial Services Industry. Corporate members include Deutsch Bank and JP Morgan who use this qualification and subsequent courses as a measure of competence for their employees.

ENTRY REQUIREMENTS

Applications are requested from students during the summer term of their Lower Sixth year. Places on the course are

INTRODUCTION TO INVESTMENT QUALIFICATION

awarded to only those students who can demonstrate a credible interest in pursing a career in the Financial Services Industry. Most students will naturally come from the Economics and Business mangement department but this is not a pre-requisite.

COURSE OUTLINE

The course is delivered through one lesson per week plus weekly seminars that take place during activity time. The activity session is taught by an outside Specialist from the Financial Sector. The students have the chance to compete in an online trading investment game that lets them play the role of fund manager. There will also be visits from current City professionals giving the students the opportunity to hear the advice and experiences of those who have not only completed the award but are now working directly in the Financial Services Industry. Official SII learning material is used so that students are fully prepared including a wide range of resources available on the SII website, www.sii.org.uk.

SYLLABUS AND ASSESSMENT

The course gives an introduction to the workings of the Financial Services Industry and the Economic Environment within which it operates. It then covers in detail the main Financial Assets and markets, including equities, bonds and derivatives. Alongside this, the role of regulation is introduced and a study of the impact it has on the industry is undertaken. The principles of taxation are covered along with the use of investment wrappers and trusts before finally looking at the details of retail investments such as savings accounts, property, personal loans and life assurance.

The Award is assessed by a single online, 50 questions, multiple-choice examination run by the SII. The qualification is fully recognised by the Financial Services Skills Council (FSSC) and the QCA.

THE FUTURE – HIGHER EDUCATION AND CAREERS

There is no question that this qualification gives students a head over others in the competitive world of the Financial Services Industry. The range of graduate employment opportunities is enormous, with challenging career paths open to those with the ambition and flair to succeed. Careers paths may include; corporate finance, debt capital, equity capital, mergers and acquisitions, capital markets, private banking, retail banking, fund management, risk management, operations, compliance, global custody or foreign exchange.

ENGLISH LITERATURE

HEAD OF DEPARTMENT – MRS JANE BATHARD-SMITH

English Literature is a popular subject that enables students to engage directly with imaginative literary creations from some of the finest minds in history. Over the two year course students immerse themselves in at least eight challenging texts, of various genres and from different periods, and it is expected that the process results in a deeper understanding of oneself and of the human condition. Students who enjoy literature, discussion and the surprise of a fresh perspective will thrive on this course. The ability to express complex ideas with lucidity is highly regarded, and students receive guidance on how to write essays that combine clarity, sensitivity and force.

Students are expected to read widely around the course so as to become more sophisticated, discerning and knowledgeable in their response to literature. Reflections on wider reading are kept within a student reading log which acts as a catalyst for further discussion and lines of enquiry. Students are encouraged to find their own voice in response to literature and thereby acquire the independence of mind that is crucial for successful future study and for adult life.

Each year the department runs a number of trips to the theatre and is always looking for opportunities to enrich the students' cultural and literary experience. In 2012-13 Epsom Sixth Form English students visited the Cheltenham Literature Festival, attended a cultural course in Italy, attended a writing week at the Arvon and contributed to the Creative and Literary Society.

Students who become successful in English Literature acquire both powers of analysis and an ability to write effectively; English Literature is therefore considered a 'facilitating' subject by Russell Group universities.

The English Department follows the CIE's *A & AS Literature in English Syllabus Code 9695.*

THE EXTENDED PROJECT QUALIFICATION

HEAD OF DEPARTMENT – MRS M ODENDAAL

WHAT IS THE EPQ?

The Extended Project Qualification is designed to give students the opportunity to do independent research. There are no exams, the EPQ can be done in several different ways:

- It could involve research which results in a 5000 word dissertation and an oral presentation.
- It could involve the making of an artefact such as a piece of art work, a play, or photography portfolio
- It could involve a piece of specialist writing for example a mathematical proof or a piece of work written in a foreign language
- These are just a few examples: there is tremendous scope for people with innovative ideas.

It gives a graded qualification which is the equivalent of an half an A level. This means that it is possible to get an A*. The best projects are considered to be as good as a University dissertation.

WHAT DOES IT ENTAIL?

Students will choose a topic of interest to them and will pose a research question which will be answered through the medium of the project. A main part of the aim of this enterprise is to teach students to think at a more sophisticated level. This entails:

- Learning the critical thinking skills of analysis and evaluation
- Learning how to research literature
- Learning how to use the Harvard system of citation
- Learning how to incorporate what you have read in the writing of the dissertation

Students will write a 5000 word dissertation or present an artefact accompanied by a1000 word report. Everyone will give a presentation on their work. This presentation could take the form of a short talk or a display, usually with an audience. Each student must then answer questions.

HOW IS THE COURSE STRUCTURED?

There are two strands to the course. The first strand is learning the how to do a project (this is taught in two lessons a week or in an afternoon activity slot). The second strand is individual supervision: each student is appointed a supervisor and will meet with him or her weekly to discuss progress. The EPQ is completed in the student's own time, so a good work ethic is a prerequisite for the course. A high level of organisation is demanded for this course.

There will be two intakes of students.

The first intake will start their project at the beginning of the Lower Sixth year and submit it either in May of Lower Sixth or November of Upper Sixth. The advantage of this is that full advantage of the benefits of an EPQ can be exploited when applying to university.

The second intake will start their project in the Lent term and will submit their project in the October of the Upper Sixth year. The advantage of this approach is that the student is more likely to have clearly defined interests and is more mature when it comes to independent study.

WHO CAN DO AN EPQ?

It is open to anyone with strong GCSE qualifications although a strong work ethic as well as self-discipline are both also essential.

WHAT ARE THE BENEFITS OF EPQ?

This is an especially useful qualification for Oxbridge candidates, or anyone aiming at a top university. For example potential medics could write a dissertation on a medical topic. Such a project should enhance a UCAS application: universities are looking for evidence which demonstrates a facility for independent and innovative work.

Universities are very interested in EPQ: students who have already completed it report that it proves very valuable and is a contributing factor towards the offer of a place. Some universities e.g. Bristol and Southampton, will make a reduced offer if an EPQ is successfully completed. The EPQ adds a strong intellectual dimension to the personal statement in a university application. In addition students not only can talk at interviews about their own original research, they are far better prepared for the demands made on them when they eventually enter university.

GEOGRAPHY

HEAD OF DEPARTMENT – MR P J IRVINE

Geography has one of the largest Sixth Forms at Epsom. It appeals to a wide variety of candidates who find the subject interesting and highly topical. It fits in well with science and medicine, and it is also a natural foil to the humanities, particularly politics, economics, and history.

It is taught on the top floor of Mackinder, where there are excellent computing resources and plenty of classroom space. The new AQA course has been adopted, with the main text, resources, and interactive questions easily available on-line. The fieldwork component is studied on a termly day release to Juniper Hall field studies centre at Box Hill, and coursework is no longer a feature at either AS or A2.

COURSE CONTENT

We have adopted the new AQA course, which is a challenging enquiry-based course drawing on many contemporary global issues. The entire course has been designed with on-line resources, and we have two excellent supporting textbooks specifically written for this examination board.

The AS course examines the state of the planet's population and resources. We touch on many geopolitical and historical themes, such as Malthus' predictions of apocalypse in 1801, global conflicts such as the sixties Cuban missile crisis (an excuse to play some Bob Dylan songs of the time), through to the threat of pollution, global warming and sea-level rise to our planet in the modern millennium. We focus on river flooding and coastal erosion, and examine the energy situation with particular reference to petroleum, nuclear power and renewable supplies. We study the reasons for change in the British population, its composition, where we choose to live, work, and play, and whether the growth of population is sustainable on the planet.

The AQA course is an exciting one because of its relevance to contemporary global problems. Membership of the EU, future energy policy, the geopolitics of oil supply and demand, the emergence of India and China, the threat of rising sea levels on our major cities, and the need to manage the planet's resources in a sustainable and responsible manner.

Fieldwork is an integral part of the AS course and, although externally assessed coursework has been removed, candidates are expected to show experience of fieldwork in their written examinations. The fieldwork component is studied on a termly day release to Juniper Hall field studies centre at Box Hill.

CAREERS AND SIXTH FORM COMBINATIONS

Geography links with the traditional sciences and mathematics extremely well, setting up pupils for careers in medically related disciplines and engineering. Nationally, Geography, Earth Sciences, and Social Sciences form one of the largest areas of undergraduate entry. In addition to this, Geography fits in well with the 'Arts', particularly History, Politics and Economics. Geographers have a good success rate at Oxbridge entry.

Many pupils will go on to careers in:

Mathematical services such as accountancy, systems analysis, banking, treasury, insurance.

Information services such as libraries, journalism, market research, the media, HMSO, museums and research.

Social services such as the police, social work, consumer services, further education, demography, personnel, census bodies, local government.

Travel and Tourism including National Parks, the British Tourist Board, Rail, Air and Road services, hotel management, and recreational management.

Environmental services such as farming, forestry, building, health, estate management, architecture, marketing, Town and Country planning, estate agency and property.

Finally, geographers usually end up in management because of their ability to study a range of issues and their ability to communicate with other people. These include local government, trade, industry, customs and excise, business management, commodities, buying and advertising.

HISTORY

HEAD OF DEPARTMENT – DR M A L TOD

- Large History Sixth Form
- Excellent results
- Lively Department in up-to-date accommodation

AS HISTORY

The two (AQA) Units studied are: **Unit 2B (Henry VIII and the English Church 1529-1547)** and **Unit 1F (France in Revolution, 1774-1815).**

Historians study a wide range of English and European History from the sixteenth century through to the early nineteenth century. The main theme of this two module course involves Absolute Government. We are firstly interested in how monarchs sought to dominate and control their countries. Half of the AS course is set on English history in the sixteenth century, centring on Henry VIII's struggle to dominate the Church, 1529-1547, with connections to foreign policy and the careers of prominent individuals such as Cardinal Wolsey and Thomas Cromwell. In contrast to this, the remainder of the AS course will focus on European history and the French Revolution, exploring the origins of the revolution, the movement from monarchy to republic, before concluding with the era of Napoleonic rule (1799-1815).

A2 HISTORY

The two (AQA) Units studied are: **Unit 3N (Aspects of International Relations 1945-2004)** and **Unit 4X (Historical Enquiry).**

A2 historians will study a wide sweep of international history, from 1945 to 2004, highlighting the origins and nature of the Cold War rivalry between the USA & USSR. This will include investigations into Korea, Vietnam, the development of the Arms Race and the reasons for the collapse of Communism in Europe in the 1990s. Also, the emergence of both China and Europe as forces on the international scene will be considered, including the latter's role within NATO. Finally, the course highlights recent global conflicts, including events in the Balkans, Iraq and the impact of 9/11 on international relations. This course comprises 60% of the A2 year. Students will also complete a parallel Historical Enquiry (Unit 4X), examined as a coursework essay of approximately 4000 words. The subject matter of the Enquiry will vary, depending on the expertise of the teacher, with particularly popular courses involving focus on European witch-hunting, Russian history 1840-1960 and the Unification of Germany in 1871. The Enquiry accounts for 40% of the marks available in A2 History.

Teaching methods at A Level combine the lecture, the discussion and the tutorial. Candidates are encouraged to discover information and ideas for themselves, to analyse that information, make judgements on it, formulate conclusions and communicate their findings fully and clearly. In addition there will be the opportunity to attend various History conferences and to go on foreign trips to the USA and perhaps to France. There are regular lectures from outside speakers and an active History Society. Considerable guidance from the teachers is required in the early stages of the course, but once the techniques have been mastered, candidates are well-equipped to cope with the demands of Higher Education in most other disciplines, as well as History itself.

ADVISABLE QUALIFICATIONS

History 'A' Level candidates should be interested in people and society, in finding out why things happen and their consequences. They should enjoy thinking, reading, researching, working things out for themselves and drawing conclusions. They should be able to write clear, precise English.

Almost all History A Level candidates have already passed GCSE at grades A* or A. GCSE is not essential but candidates have much ground to make up without it.

SUBJECT COMBINATIONS

History is taken to 'A' Level with a wide variety of other subjects. For those intending to read History at University a language is highly desirable. English, Economics, Politics and Geography are other suitable 'A' Levels for the potential University History specialist. Pupils hoping to read PPE, Economics or Business Studies at University often take History with Maths, Economics or Geography; History and Maths is also a favoured combination for Law. A small number of able pupils take History with Maths or a Science, keeping open the maximum number of options consistent with a broad 'A' Level course; this combination has proved particularly successful.

HIGHER EDUCATION AND CAREERS

History is a well-regarded 'A' Level and leaves open a vast range of University career paths. 'A' Level History forms a valuable element for Law, Economics and related subjects at University.

A History degree itself is a highly marketable commodity, almost all careers outside the specialist areas of Engineering, Natural Sciences and Medicine are open to the History graduate. The most popular in recent years include Merchant Banking, Accountancy, Law, Industrial Management, Financial Services, Journalism, Retail Management, Marketing and Sales, Advertising and Public Relations.

GOVERNMENT AND POLITICS

HEAD OF DEPARTMENT – DR M A L TOD

THE COURSE

We offer a well-known and highly regarded course from Edexcel to study at AS and A2 levels in Government and Politics. For the first year we concentrate on the nature of politics, the effectiveness of elections, the role of political parties, the constitution, Parliament, the Prime Minister and the judiciary, finishing off with a discussion of the need for reform and an assessment of how united the UK is. In the second year, groups continue with a contrasting study of the US government and democracy. There in no coursework element in this A Level.

Candidates are encouraged to discover information and ideas for themselves, to analyse that information, make judgements on it, formulate conclusions and communicate their findings fully and clearly. Teaching methods at A Level combine the lecture, the discussion and the tutorial. All Key Skills can be taught within this course, most to the top level. In addition there will be the opportunity to attend various conferences and to visit Parliament and other relevant institutions. There is an active Politics Society. Candidates will be encouraged to attend lectures by external speakers organised by the Department and to keep a scrapbook of newspaper cuttings relevant to their studies.

ADVISABLE QUALIFICATIONS

Government and Politics candidates may have taken any combination of GCSE courses, but they will be interested in people and society, and they must be able to express themselves fluently on paper and in discussion. They should be prepared to investigate issues for themselves.

SUBJECT COMBINATIONS

Government and Politics can complement a wide variety of other subjects. It is a highly regarded A Level and would both widen a science-based course and add greatly to a language or humanities-based course. Those wishing to take History with Government and Politics A or AS Levels should be encouraged since the subjects are very different in practice, even though they obviously have skills and many interests in common.

HIGHER EDUCATION AND CAREERS

Government and Politics is an obvious choice for candidates wishing to read History, Law, Economics and Politics at university. It would also be complementary to Human Geography and Business courses, or any career in which students will be involved in management decisions in the real world. Government and Politics is not a lightweight option and a good grade will tell heavily in a candidate's favour in entry into Higher Education.

LATIN

AS AND A2 LATIN INTRODUCTION

Pupils wishing to study Latin Language and Literature at AS level are usually expected to have gained an A or A* in Latin at GCSE.

The aim of the AS Latin course is to introduce pupils to both aspects of Latin in a more sophisticated and extensive fashion. Appropriate historical and literary backgrounds are also studied, broadening pupils' understanding of the Roman world.

AS LATIN

The two units studied are: **Unit F361 (Language)** and **F362 (Literature)**

F361 Language

Pupils study accidence and syntax and a Defined Vocabulary list in preparation for a paper of two passages for unseen translation.

F362 Literature

Study focuses on one verse author and one prose author. The examination focuses upon comprehension and a wider knowledge of the literary contexts of each author set.

A2 LATIN

Two units are studied over a one-year period.

F363 Latin Verse

Pupils study one verse author (Vergil or Catullus) and are also prepared for one passage of unseen translation from a specified verse author (Ovid).

F364 Latin Prose

Authors such as Tacitus, Livy and Sallust are the focal point for this paper, as well as preparation for translation of a prose passage from Caesar or Livy.

Latin can be teamed with Arts and Science subjects at AS and A2 level and is widely available at Universities in conjunction with other disciplines.

MATHEMATICS

HEAD OF DEPARTMENT – MR A J WILSON

- A challenging subject
- Useful basis for most careers
- Pre-requisite for courses in Sciences and Engineering

COURSE

University of London (EDEXCEL) Modular Syllabus
Modules available:

- 7 Pure Maths (C1, C2, C3, C4, FP1, FP2, FP3.)
- 75 Mechanics (M1, M2, M3, M4, M5)
- 72 Statistics (S1, S2)
- 71 Decision Maths (D1)

COURSE REQUIREMENTS

AS Mathematics is a very challenging AS level, it is advisable to have obtained a grade A at GCSE in order to be able to start on the AS course. Those who have taken Additional Mathematics, or an equivalent subject, will generally be setted separately from those who have not.

Only the most able students study the "double subject" of Mathematics and Further Mathematics, for which it is essential to have gained a grade A in GCSE and studied a Maths Module or some form of Additional Mathematics successfully. For Double Mathematicians there are some extra lessons. However, you will still be able to take a further three AS levels.

In general, pupils are taught by two different teachers – one for Pure Mathematics and one for Applied Mathematics (either Mechanics or Statistics). The choice of Mechanics or Statistics is dependent on the pupil's other AS subjects – Mechanics being advisable if Physics is also being studied, whereas Statistics is helpful for those studying Biology, Geography or Economics. There are 4 lessons per week in Pure Mathematics and 2 lessons per week in Applied Mathematics, in the Lower and Upper Sixth.

COURSE STRUCTURE

Final examinations comprise of one 1 1/2 hour paper for each module. Six modules are required for a Mathematics A2, and six further modules for a Further Mathematics A2.

A LEVEL MATHEMATICS

A student taking Pure Mathematics with Mechanics will take modules C1, C2, C3, C4, M1 and M2. A student taking Pure Mathematics with Statistics will take modules C1, C2, C3, C4, S1 and S2.

A LEVEL MATHEMATICS AND FURTHER MATHEMATICS

A student will take modules C1, C2, C3, C4, FP1, FP2, FP3, M1, M2, M3, and then an agreed choice of two from M5/S1/D1. It is also possible to combine three modules to obtain a variety of AS Levels S1/S2/D1. Further Mathematicians have 4 Pure lessons and 3 Applied lessons per week.

AS MATHEMATICS

For those who choose Mathematics as a fourth subject, they will sit AS Applied Mathematics in the Lower Sixth. These students would join the full A level classes for one year, sitting three modules at the end (C1, C2, M1 or C1, C2, S1).

Mathematics is a very useful basis for most careers, and is a pre-requisite for degree courses in the Sciences and Engineering. It is also good grounding for logical development of the mind. However, although it is an important qualification, it is not for everyone and the decision to study this subject at A level should be a carefully considered one.

MODERN LANGUAGES

HEAD OF DEPARTMENT – MR. M. R. FRIES

- French, German, Spanish, Mandarin Chinese
- A useful if not essential ingredient of the modern world
- Opportunity for study visits to France, Germany, Spain and China
- Can be beneficially combined with a wide range of subjects

The A-level examinations in Modern Languages have undergone substantial changes in recent years concentrating on relevant topical themes in the country of the target language.

The department follows the OCR syllabus in French and German, the AQA syllabus in Spanish and in the specific case of Mandarin Chinese the Pre-U course.

MODERN LANGUAGES

For French, German and Spanish the examinations are arranged as follows:

AS Level: (two modules)
- Speaking
- Listening, Reading and Writing

A2 Level: (two modules)
- Speaking
- Listening, Reading and Writing

AS is taken at the end of the Lower Sixth year, and candidates have the opportunity to retake these modules the following year to improve their scores.

For Mandarin Chinese, candidates follow the Pre-U syllabus. Pre-U is highly regarded as an A-level equivalent by universities. The examination in Mandarin Chinese is designed for non-native speakers, with makes the course particularly attractive.

All papers are sat at the end of the Upper Sixth year, which means that pupils who opt for this subject cannot drop it at the AS stage. This is not seen as a major issue for those planning to take it.

The examination papers are arranged as follows:

Paper 1 – Speaking
Paper 2 – Listening, Reading and Translation
Paper 3 – Writing and Usage
Paper 4 – Chinese Culture (answers written in English)

SUBJECT COMBINATIONS

Traditionally, pupils have combined a foreign language with any of the Arts or Modern subjects, particularly Economics, Business Studies, English Literature, History and Geography and also Mathematics and Statistics. The possibility of four subjects has encouraged more to do two foreign languages, at least for AS, and a number now combine a foreign language with a science-based course.

HIGHER EDUCATION AND CAREERS

It is truer than ever to say that languages have proved to be a useful combination with almost any other subject at University and beyond. They may, of course, be studied on their own at University or lead to the advanced study of a further language.

However, for many years now our pupils have also proceeded to highly successful university studies and careers through combined subjects such as Economics, Accountancy, Law, Politics, or the Sciences, with a foreign language.

In this way, a degree in languages or in any of the combined subjects can lead to a wide spectrum of careers, for example in Law (especially Commercial Law), International Banking or Finance, Accountancy, Business, Exports, the Foreign Office, the Armed Services etc., indeed any walk of life which has an international dimension. Applicants for such jobs are often asked to give details of any foreign languages they speak and their degree of expertise in them.

The Department organises study visits to France, Germany, Spain and intends to arrange a visit to China in the near future.

MODERN LANGUAGES – MANDARIN

In the specific case of Mandarin Chinese, the College has taken the decision to offer the Pre-U course, as is offered for this subject in many leading schools.

Pre-U is highly regarded as an A-Level equivalent by universities. It does not require pupils to sit modules at the end of the Lower Sixth year, and all papers are sat at the end of the Upper Sixth year. It does of course mean that pupils opting for it cannot drop the subject at the AS stage, but we do not see that this will be a major issue for those planning to take it.

We are particularly attracted to this examination as it does not cater specifically for the native-speaker market, as is the case with other Chinese A-levels on offer, and we are also attracted by the interest of its content. The details of the papers are as follows:

EXAMINATION CONTENT

The examination consists of four papers, which broadly reflect the newer-style Modern Languages A-levels, but with a few key differences:

Paper 1 – Speaking (20%)
a) Prepared topic and topic conversation
b) General conversation

MODERN LANGUAGES – MANDARIN

Paper 2 – Listening, Reading and Translation (30%)
a) Two reading passages – with questions in English
b) Chinese sayings – a list of 25 is provided in the syllabus; 3 are chosen for the examination
c) Translation into English

Paper 3 – Writing and Usage (25%)
a) Identification of radicals and measure words
b) Letter writing
c) An essay, requiring candidates to express opinions

Paper 4 – Chinese Culture (25%)
a) Topics in Chinese Culture (e.g. the Foundation of the People's Republic of China; or Economic trends)
b) Literature or Film (one "set book" or film)
Both a) and b) are to be answered in English.

The use of the Pocket Oxford Chinese Dictionary is allowed in all papers except the Oral.

The topic areas covered are similar to those offered in the other languages above, but we see the inclusion of a culture paper as a particular advantage in terms of interest and value.

All language teaching is done by our native speaker from mainland China, and we maintain links with all the key Chinese language teaching associations in the UK.

ADVANTAGES OF PRE-U

We consider the principal advantages to be:
- the fact that the examination is designed for non-native speakers
- the use of criterion-referencing rather than norm-referencing; in other words, all candidates worthy of top grades will receive them, not just a top percentage.
- the use of English for the Culture paper
- much of the preparation for this paper can be delivered in English
- large parts of this paper can be delivered by other specialists, e.g. in Economics, History or Literature
- the use of English to test comprehension
- the availability of a dictionary.

SUBJECT COMBINATIONS AND HIGHER EDUCATION AND CAREERS

For these we would refer you to the relevant entries under Modern Languages above. Regular trips are offered to places of Chinese cultural interest in the UK, such as the British Museum and Chinatown, and the department is intending to arrange a visit to China in the near future.

MUSIC

HEAD OF DEPARTMENT – MR G A LODGE

- Four choirs, including the Chapel Choir rehearse each week and perform regularly
- Seven instrumental ensembles, among them Orchestra and Big Band, enjoy a lively rehearsal and performance schedule
- A wide range of concerts each term
- An annual musical theatre production (musical or opera)
- Excellent facilities for rock groups and music technology
- An unrivalled team of instrumental and vocal teachers drawn from all musical fields

INTRODUCTION

The AS/A2 course in Music is challenging and varied because a fully rounded musical education requires a wide range of skills: probably more than any other subject. The diverse nature of the course is reflected in the three unit structure for AS/A2 assessment in each year, outlined below.

To start the AS course you would need to have a strong interest in all areas of the subject. You will also need to be performing on any instrument/voice at approximately Grade 5 standard at least. It is not necessary to have taken GCSE Music, although the skills developed on this course will be useful during the AS/A2 course.

COURSE OUTLINE

The units at AS Level are:

Unit 1 – Performing.

(30%) This involves five to six minutes of recorded solo performance. The standard level of performance expected is approximately Grade 5. Candidates performing well at this level can achieve full marks but it is worth noting that marks for performances at a higher level than this are scaled up. This unit is assessed by the Music Department and externally moderated.

MUSIC

Unit 2 – Composition.
(30%) This involves composing an original piece lasting three minutes based on one of four briefs released by the examination board in September. In addition you will produce notes about your finished composition and the music that influenced you when writing it. This unit is completed under controlled conditions and externally assessed.

Unit 3 – Developing Musical Understanding.
(40%) This is assessed as a two hour examination paper in three sections. The first two will test knowledge on a range of set works from two Areas of Study ("Instrumental Music" and "Vocal Music"), and the third will test knowledge of basic harmonisation.

Those progressing to A2 in the Upper Sixth are required to study the following units:

Unit 4 – Extended Performance.
(30%) This involves a 12-15 minute recorded solo recital, with a standard level of Grade 6 that is marked by the Music Department and externally moderated.

Unit 5 – Composition and Technical Study.
(30%) Two original compositions, two technical studies, or one of each, are submitted for external assessment. They are completed under controlled conditions.

Unit 6 – Further Musical Understanding.
(40%) This is assessed as a two hour examination paper in three sections. The first involves responding to unfamiliar music loosely related to the set works for this unit. The second covers the Area of Study "Applied Music" and involves questions on set works which were composed for a specific purpose (for example, the stage, or for film and TV). The third is an extended essay question based on set works from the "Instrumental Music" Area of Study.

As a subject in the Sixth Form, the breadth of the skills required mean that Music is liked by all universities. It is not just a subject for those who wish to pursue a musical career in the future. It can be combined with most subjects satisfactorily and former pupils have included Music alongside sciences, social sciences, humanities, or a mixture of these.

PHOTOGRAPHY

HEAD OF DEPARTMENT – MR R JOHNSTONE

- Exciting and creative course offered
- Fully equipped Photography Studio
- Mac computers and photoshop used for photography manipulation
- Outstanding results – in recent years most pupils achieve an A or B grade
- Learn artistic techniques using digital media and a traditional darkroom
- Traditional darkroom and modern digital photographic techniques are taught

COURSE OVERVIEW

The course exposes pupils to art and image making using new media techniques. Students will be taught a wide range of digital imagery skills using digital cameras and Mac computers. This is primarily a photographic course and integration of other art techniques is encouraged. Typically this will include:

- Digital Photography – Pupils learn how to master dSLR cameras and image making using lens and light based media
- Digital Art – learn how graphic designers, web designers and digital artists create art on the computer
- Multimedia and lens based imagery: last year a student created a short film

COURSE OUTLINE AND SYLLABUS DETAILS

Examination Board: Edexcel
Qualification: Art and design – Photography

The AS specification has 2 Units:
Unit 1: Coursework Portfolio – This requires the creation of a sketch book and final image. Topic set by Epsom College.

Unit 2: Exam (Controlled Assignment) – This requires the creation of a sketch book and final image produced under exam conditions. Topic is chosen from list supplied by exam board.

The A2 specification has 2 Units:
Unit 3: Personal Investigation: Coursework – This requires the creation of a sketch book and final image. Topic set by pupil.

Unit 4: Exam (Controlled Assignment). Topic is chosen from list supplied by exam board.

For further information about the course please contact raj@epsomcollege.org.uk

PHYSICAL EDUCATION

HEAD OF DEPARTMENT – MRS F C DRINKALL

- Access to first-class facilities
- Dynamic and experienced Department
- Multi-dimensional stimulating and diversified syllabus
- Vast extra-curricular programme complements the course
- Varied and stimulating material involving applied sports theory and practical sessions
- Increasingly popular option in our 10th year
- Superb valued-added results and top ranked department for VA scores over past 5 years

AS/A2 LEVEL SYLLABUS DETAILS (AS H154/ A2 H554)

At Epsom College we study the OCR Examination Board's AS/A2 Level Physical Education syllabus. We started the course at the College in 1998 with 5 students in the Lower Sixth; we now have over 40 students taking the subject in the Sixth Form.

QUALIFICATIONS FOR AS/A2 LEVEL

It is important that candidates are literate with a sound GCSE base; a solid Biology grade would be advantageous although not essential. They should be interested in sport and society and linking theory to practice. It is not necessary to be an outstanding athlete or games player but some ability and a keen interest in sport is essential. A GCSE in Physical Education is not a prerequisite.

SUBJECT COMBINATION, HIGHER EDUCATION AND CAREERS

Accepted by Universities and Colleges depending on the constraints of the course and the combinations you have chosen. Students are encouraged to look at individual university websites for specific details.

The course is over 20 years old and has grown nationally from 3 centres and 35 candidates in 1986 to having more than 1000 centres and over 35,000 candidates in 2009. This multi-disciplinary course is seen as compatible with a wide range of other A2 Level subjects.

Career opportunities exist in the ever-growing leisure industry, teaching and coaching, recreational management, the health and fitness industry, sports marketing and professional sport. As a fully recognised AS and A2 qualification, Physical Education will support applications for a wide variety of degree courses.

SCHEME OF ASSESSMENT

The Advanced Subsidiary (AS) forms 50% of the assessment weighting of a full A Level. AS can be taken as a stand-alone specification or as a first part of the full A Level Course.

AS Candidates take Units 1 and 2.
A2 Level Candidates take the above units and 3 and 4.

Unit one (AS): G451

2 hour paper, 90 marks 60% AS & 30% A2

An introduction to Physical Education involving Anatomy and Physiology, Acquiring Movement Skills and Socio-Cultural Studies.

Unit two (AS): G452

2 Sports, 80 marks 40% AS & 20% A2

Acquiring, developing and evaluating practical skills. Practical Module.

Unit three (A2): G453

2 1/2 hour, 105 marks 35% A2

- Principles and concepts across different areas of Physical Education
- Socio-cultural options, Historical and Comparative Studies
- Scientific options, Sports Psychology

Unit four (A2): G454

1 Sport, 60 marks 15% A2

The improvement of effective performance and the critical evaluation of practical activities in physical education.

KEY SKILLS

This course provides the opportunity for candidates to demonstrate the key skills of Communication, Application of Numbers, Working with Others, Information Technology, Improving Own Learning and Performances, and Problem Solving.

Please consult the Physical Education Department who are all involved in the delivery of this rewarding and exciting course. For more information e-mail: fi@epsomcollege.org.uk

PHYSICS

HEAD OF DEPARTMENT – DR A W HUGHES

- Excellent results at AS and A2 over many years
- Refurbished labs with excellent IT equipment
- Excellent resources for teaching practical aspects of the subject

PHYSICS AT A AND AS LEVEL

If you have an inquisitive mind then Physics is for you. It is the study of how things work and the interpretation of the natural world around us. In studying it, you will gain the ability to think more logically and apply your mathematical skills to solve problems. Analysing complex data and interpreting this will be a highly transferable skill, together with the recognition of the limits of your scientific data. You will also learn to simplify problems and interpret diagrams, both in 2 and 3 dimensions.

Whilst Physics at 'AS' and 'A2' level builds on what you have met at IGCSE level it does become more mathematical in nature, although by doing the IGCSE this change has been reduced compared with the ordinary GCSE. If you have struggled to cope with Maths at GCSE level you would find this course very difficult. It is for this reason that the entry requirements below are in addition to the normal qualifying conditions for Sixth Form study.

ENTRY REQUIREMENTS

- You ought to have at least a grade 'B' at IGCSE, and preferably an 'A' in Physics and also in Maths. Typically you could expect to achieve the following AS or A2 grade:
- *With an 'A*' or borderline miss at IGCSE you should be able to gain an 'A' grade at A-level, provided you work hard throughout*
  With a weaker 'A' at IGCSE you could gain a 'B' at A level
  With a 'B' at IGCSE you will probably gain a 'D' or 'C'
- If you only had a 'C' at IGCSE you would find A-level Physics very tough
- From a dual award in Science background you should only consider Physics if you have a double 'A' or 'A*'

COURSE OUTLINE

We will be preparing you for the AQA examination for which there are 2 compulsory units together with an internally marked practical component at 'AS' level:

Unit 1: The first of these units deals with the nature of atomic structure and the way in which particles interact. Some new ideas about antiparticles and their strange behaviour will arise, together with the concept of quantum physics, but there will also be plenty of familiar material which develops from your current electricity work.

Unit 2: Involves the study of Mechanics and the properties of materials. Ideas about the behaviour of waves will be introduced, with the concept of superposition of 2 wave trains being used to explain interference.

Unit 3 (practical work): This carries 20% of the AS qualification and is divided into 2 aspects; Practical Skills Assessments (PSA), and Investigative Skills Assessment (ISA). For the PSA you have to demonstrate that you can read a variety of instruments correctly. The bulk of the 20% is awarded though for the ISA. This is a practical set by the examination board, but marked internally. There are also further assessment questions set by the Board on your own data and on specimen data produced by AQA.

At 'A2' level a similar structure is used:

Unit 4: Comprises of Electric, Gravitational and Magnetic Fields, together with some more advanced Mechanics.

Unit 5: Consists of Radioactivity and Thermal Physics, together with Applied Physics which looks at roational dynamics and engines.

Unit 6 (practical work): This follows the same structure as Unit 3 and is internally assessed. At both levels, the practical work carries 20% of the overall mark.

HIGHER EDUCATION AND CAREERS

A-level Physics is one of the most favoured A-level subjects listed by Cambridge, LSE and other top universities, having the reputation of being relatively difficult. However, do not be put off by the "difficult" tag – if you have done reasonably well at GCSE level you will cope with the change to A-level standard.

It is particularly useful as a career requirement if you are doing any form of engineering, technical work, computer science, or thinking of any pure science at university. For these subjects it is a vital requirement.

Whilst not an absolute requirement for Biological, medical and veterinary courses, it is well worth doing Physics as so many processes involve Physics principals. You will make yourself more attractive to the universities if it is one of your A-level choices. Failure to do the subject for medics will make the nervous system difficult to grasp, whilst concepts like blood pressure will be harder to deal with and the limits of non-invasive imaging or surgical techniques will be a mystery.

PHYSICS

SUBJECT COMBINATIONS

Probably the most common combination of subjects is Physics and Maths, since increasingly there is some overlap in the course material. For example, there exists the advantage that you will study mechanics in both subjects and they therefore reinforce each other.

There are also strong links with Chemistry, as so many of the ideas about the structure of materials link with the principles of Chemical bonding. Hence Maths Physics and Chemistry is the most common combination.

If you are thinking of a more Biological need, it is possible to do A-level Physics without the Maths, but this does make the mechanics topic rather harder. There is very little Pure Maths used beyond what you will have met at GCSE level, and those ideas which are new would be taught by the Physics dept. These topics are only in the 'A2' section of the syllabus.

Physics can also be linked with a humanity to give a broader base to your A-levels, with Economics or Geography being quite popular. The latter combination is particularly useful if you are thinking of architecture. When linked to Economics the ability to handle numerical work and abstract concepts means that you can go for a career in accountancy or business.

Physics is thus one of the most useful A-level subjects in opening a range of career paths.

THEOLOGY & PHILOSOPHY

HEAD OF DEPARTMENT – MRS A MARTINEAU

This is an increasing popular course nationally and valued by all Universities.

- Explore ultimate questions about life, existence and morality
- Opportunities to discover the philosophies of others and develop your own thoughts and views
- Develop life skills, decision making, formulating reasoned arguments, engaging in debate
- Departmental trips to hear top speakers in the world of Philosophy and Religious Ethics

AS/A LEVEL: RELIGIOUS STUDIES

INTRODUCTION

If you have ever asked yourself 'Does God exist?', 'Why does God not stop people starving to death?', 'How ought I to act to be good?' then you have already expressed an underlying interest in this course. Although you will eventually gain a certificate in Religious Studies, our course is focused on Philosophy of Religion and Religious Ethics. The course seeks to engage you with some of the great ideas of the day. It looks back through history to see how these issues have arisen and then looks at contemporary philosophers to see how they have answered these problems. At all times we will be asking you how you respond both to the issue examined and also to the views of these scholars. Have they convinced you? Can you think of a better answer?

The subject is largely essay based so you will need the ability to express your ideas coherently upon the page but any GCSE Humanities subject will have prepared you for this.

ENTRY REQUIREMENTS

Whilst a GCSE in Religious Studies is an advantage, as you will have already started to think about some of the ideas that we explore, it is not essential. If you have taken RS GCSE you will need a grade B or above. If you think you can hold your own views whilst being open to the views of others and have the ability to express a range of ideas in writing, then this subject is for you. You may come from a religious persuasion or have no religious belief at all but you must come with an open mind.

If you are still not sure if you would like the course, read 'The Philosophy Files' by Stephen Law or have a brief look at 'The Story of Philosophy' by Bryan Magee. If either interest you, then this is the subject for you,

COURSE OUTLINE

You will follow the Oxford, Cambridge and RSA Examinations (OCR) Philosophy of Religion and Religious Ethics course. This comprises of two modules at AS and should you continue into A2, a further two modules.

Overleaf is a brief outline of the AS and A2 course:

THEOLOGY & PHILOSOPHY

THE AS COURSE

This comprises of two units:

Philosophy of Religion:

- Ancient Greek influences on religious philosophy – Plato, Aristotle
- The Judaeo-Christian concept of God
- Traditional arguments for the existence of God
- Challenges to religious belief posed by the existence of evil and science

Religious Ethics:

- The use of ethical language and the concepts of 'right' and 'wrong'
- Theories about how we decide between a right and a wrong action
- The application of ethical theories to various issues e.g. Abortion, euthanasia, genetic engineering, war and peace

There is no coursework. Each unit will be examined by a 1 hour 30 minute examination.

Students are expected to answer two structured questions in each exam.

THE A2 COURSE

This consists of two units:

Philosophy of Religion:

- Religious Language
- Religious Experience – miracles and revelation
- Beliefs about life after death
- The nature of God

Religious Ethics:

- Ethical theories
- Freewill and determinism
- What we mean by 'conscience'
- The application of ethical theories to various issues e.g. Environment, business and sex

HIGHER EDUCATION AND CAREERS

The ability to think clearly and express your ideas upon the page coherently is valued by many. People who are interested in law, accountancy or business take this course as a way of demonstrating that they have the ability to think through an issue and reach an informed decision. Many potential Medics take is course at AS level as a way to start to think coherently about Ethical issues. It also serves as a good way to develop critical thinking skills in preparation for the BMAT. This course also demonstrates that you have an understanding and appreciation of other people's point of view – an important skill in almost every job.

An AS or A level in Religious Studies is well regarded by all universities and colleges.

SUBJECT COMBINATIONS

This course is good with most other subjects. Clarity of thought and coherence upon the page is our main aim and would compliment the ambitions of most other courses. Many Mathematicians appreciate the beauty and simplicity of the philosophy that we look at. Many Biologists are intrigued by the ethical dilemmas that we study. Many Humanities students find parallels between this course and the other courses they are following.

YOUNG ENTERPRISE

HEAD OF YE – MRS E G IRVINE

- A popular additional qualification in the Lower Sixth
- An opportunity to participate in running a business
- Pupils develop valuable skills such as communication, managing time and working with others

INTRODUCTION

Young Enterprise is a national education charity founded in 1963 to forge links between schools and industry. Its mission is **'To inspire and equip young people to learn and succeed through enterprise'.**

Those of you who have been in the school for a number of years will be familiar with the scheme. YE presents pupils with a unique opportunity to **set up and run a company** in the Lower Sixth year.

ENTRY REQUIREMENTS

Young Enterprise need individuals with ideas, enthusiasm, initiative and commitment.

YOUNG ENTERPRISE

THE SELECTION PROCESS

There are 24 places in the two companies that operate, but as the scheme has been very popular in the past, it is necessary to adopt a selection process.

- The first stage involves completing an application form.
- If your application is successful you are called for an interview and a reference may be taken up.
- The interviews are held in the second week of the Michaelmas term and successful candidates will form the two companies.

Further information and an application form will be sent out to pupils in the summer term at the end of the GCSE exams.

COURSE OUTLINE

In the YE scheme pupils work together as a company and will have the power to make all the decisions associated with its running, including marketing, production and financial management.

Pupils will also be responsible for paying YE VAT and taxes and the company can decide on how any profits will be shared or allocated.

Staff from the Business & Economics Department will oversee the two companies. A YE Link Advisor from the commercial sector and a Link Teacher from Epsom College will assist each company. The activity takes up two teaching periods per week. YE is also included in the activity programme and one session will be included in a pupil's activity programme. Work is also undertaken outside of these times.

There are regional and national competitions that pupils can enter.

The scheme involves an OCR exam undertaken in May.

HIGHER EDUCATION AND CAREERS

Pupils can discuss this qualification on their UCAS application, and employers recognise this qualification.

SUBJECT COMBINATIONS

Pupils in the past in the YE companies have studied a range of A levels. Pupils who undertake the Business A level, will be able to bring their Marketing, and Finance subject knowledge to the sessions.

CAREERS

There is an extensive programme of Careers Events during Lower Sixth in preparation for Upper Sixth and life beyond Epsom.

The careers office is located within the sixth form centre. The main emphasis of careers advice at Sixth Form is in selecting appropriate further education courses. Pupils are encouraged to drop-in to see the careers team informally or to make an appointment individually.

If they have not already taken it there is an opportunity to take the Independent Schools Careers Organisation (ISCO)/ Futurewise Careers Guidance Tests. All pupils are enrolled in this programme in the fifth form.

In the Lower Sixth there is a varied programme of events looking at life beyond Epsom. A large number of Lower Sixth pupils take part in Futurewise careers courses during the Easter and summer vacations. The careers programme looks closely at the UCAS application procedure, gap year opportunities and the world of work. There are sessions dedicated to Higher Education with a variety of guest speakers, an evening focusing on the World of Work, as well as opportunities to visit University Open Days and specialised events for applications to Medical Schools and Oxbridge. There is an extensive programme of workshops in preparation for university application, covering the issues of decision making, UCAS registration and personal statements.

At the start of the Upper Sixth a day is given over to UCAS applications. Interview preparation is given on an individual basis as required. Support is readily available throughout the UCAS cycle.

Finally, when exam results are published in August, the Department is staffed to give help to any who need it. The vast majority of pupils make successful applications and achieve their first or second university of choice.

LIBRARY

The College Library is open 6 days a week
Mon, Wed, Fri 9-6
Tues, Thu 8.30-6
Saturday 9.20-12.20

An introduction to Library resources for the Sixth Form is given in the Michaelmas term and the Library is staffed by a Librarian and Library Assistants who can always help with enquiries. A variety of reading lists for university preparation and information sheets on using our subscription databases and on how to prepare references are available.

As well as facilities for research and reading for pleasure and interest, the Library offers space for private study with a wireless network for laptop connection. Other facilities include printer, scanner, photocopier, iPad and 8 computers connected to the internet and College network, including one with a 50" monitor.

The collection of approximately 25,000 items includes print and digital resources. It is indexed on a web-based catalogue giving immediate and easy access. Books can be borrowed, renewed and reserved as in a public or academic library. There is a bookable meeting room and a connecting door to the Careers Library. The ground floor houses a large selection of newspapers and journals.

WEDNESDAY AFTERNOONS

Members of the Fifth Form entering the Lower Sixth will already have arranged Wednesday afternoon activities during their Summer Term. New members of the Lower Sixth have an opportunity to opt for a number of activities. Some may wish to join the CCF, either the Service Sections – Army, RAF or Navy, Life Saving, First Aid, Community Sports Leadership, or to take Duke of Edinburgh awards. These activities are energetic, vibrant and stimulating.

All Sixth formers not involved in the CCF or Duke of Edinburgh schemes will take part in an act of Service on a weekly basis, predominantly in the local community. This scheme encompasses a wide range of opportunities for Sixth formers to volunteer their time and expertise in assisting at local schools, either as classroom assistants or after school clubs, in befriending the elderly, in assisting at SeeAbility in a broad range of areas including sign-language and recording books and magazines for the blind, helping at Riding for the Disabled, assisting in conservation work, producing art or design technology projects to donate to and sell at school fairs, teaching conversational languages and ICT programming skills to young children, as well as preparing and rehearsing musical concerts for local churches and the elderly. This scheme, which was launched in September 2013, is expected to expand still further in the coming years and is seen as an essential component of Epsom pupils contributing to the community in which they live.

EPSOM

COLLEGE

EPSOM
COLLEGE

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