

# **A-LEVELS**

**SUBJECT INFORMATION 2020-2021** 

# WELCOME TO EPSOM COLLEGE IN MALAYSIA SIXTH FORM

MEET THE TEAM

# MR BARKER ASSISTANT HEAD (SIXTH FORM)



Mr Barker oversees the running of the ECiM Sixth Form. He is responsible for ensuring that the transition from GCSE to A-level is as smooth as possible. He helps students to make the right subject choices and monitors their progress as they move through the Sixth Form. He is available for students to discuss both academic and pastoral issues and liaises with Housemasters, Housemistresses and parents about any issues or concerns. Mr Barker is very keen for the ECiM Sixth Form to be a place where students are able to explore and develop their interests. It is a place where academic success is highly valued but must be coupled with a curiosity about the world beyond the College.

# MRS CARDEN-BROWN HEAD OF HIGHER EDUCATION



The Head of Higher Education, Mrs Carden-Brown is responsible for supporting students in getting on to the course of their choice and to their favoured universities, whatever country that might be. She works with the Sixth Form in organising visiting universities, researching courses and universities, writing personal statements, supporting interview preparation and selecting offers, as well as considering future careers after university. She believes strongly that ECiM has a responsibility to its students beyond achievement in A-levels and always encourages full participation in the College's CCA programme, to prepare students for university life and beyond.

#### **ACADEMIC EXCELLENCE**

ECiM has the highest academic expectations of our Sixth Form students. Students are challenged in all areas of the academic programme through a wide range of teaching methods, including seminar discussions, debate, practical experimentation, external trips and lectures. In some sessions, students will engage with the Oxbridge-style tutorial method, which encourages student-led discussion on a one-to-one basis with teaching staff

The College was delighted with the performance of our cohort of graduates who achieved their grades in August 2019: 65% of students achieved grades at A\*-B, whilst 43% were at A\*/A. 22% of students achieved at least three A\* or A grades, with almost 20% of all grades being an A\*. This is a pleasing set of results from students from a range of academic backgrounds and clearly demonstrates that the College is adding considerable value to these students' level of attainment.

#### THE GRAYLING CENTRE

The Grayling Centre had its official opening in November 2016 and has been designed to replicate more closely what it is like to study at university. This area is where students spend most of their time during the school day and features:

- 4 new tutorial rooms which allow A-level teachers and students to conduct small group seminars and one-to-one tutorials;
- a lecture space for academic talks, visiting speakers and discussion groups;
- a study area which has been furnished with a range of different working environments to allow students to work in the space that is most conducive to their style of learning;
- the social area has been furnished with beanbags and a sound system, giving the students the opportunity to relax after a hard day's work.







#### THE HORIZONS PROGRAMME

The Horizons Programme encompasses an exciting new set of initiatives coordinated by the Sixth Form team. The aim of the programme is to enrich students' College experiences beyond simply studying for A-level qualifications. It seeks to create critical thinkers who will engage fully in the world around them and help them to challenge conventional thinking. We aim to make the Sixth Form a training ground for university and the world beyond.

**Rubber Head Lectures** run throughout the term during lunch breaks and encourage the students to engage with their academic subjects beyond the taught component of their courses. The speakers come from a range of backgrounds, from both inside and outside the College, and are encouraged to take controversial stances in order to challenge students' thinking. Both students and staff have delivered talks on areas of their academic interest, focusing on topics as diverse as feminism in the twenty-first century, to the biochemistry of the human brain, to the Rwandan genocide. Numerous academics have also visited the College to present their own cutting-edge research to the students, with topics ranging from modern terrorism to the human genome.

Students' exposure to intellectual ideas and discussion does not finish at the end of the school day. In the evenings, the Sixth Form team run regular screenings of documentaries and televised debates.

We call these **Beanbag Evenings** and during these sessions students are encouraged to challenge the viewpoints presented to them and develop their own position on important issues. The aim is to build a 'learning community' within the Grayling Centre, for both students and staff, which breaks down the barriers of the traditional student-teacher academic relationship.

Students take inspiration not only from the teaching staff, but also from visiting **Student Mentors**. Undergraduate students apply for internships at the College from a range of higher education institutions in the UK. Their time at the College is spent supporting the academic development of our top-performing students through running one-to-one tutorials, giving feedback on university applications and involving the students in their particular areas of research. This allows the students access to invaluable experience of individuals who have first-hand information about the challenges of successfully applying to, and achieving at, top educational institutions.

#### **PSHE**

The Sixth Form takes great pride in encouraging our students to prepare themselves for life beyond the College. The PSHE programme is designed to develop a wide range of skills among our students, from emotional resilience and mindfulness to budgeting for university and basic DIY, as well as engaging in discussion about current affairs. These sessions are run by the Sixth Form tutor team with support from the College counsellor and nurse. Topics covered this year include:

- Online safety;
- Revision techniques;
- Healthy lifestyles;
- First Aid training
- Financial planning bank accounts, credit cards etc







#### **EPQ (EXTENDED PROJECT QUALIFICATION)**

In a world where technology and the workplace are constantly evolving it is vital that students are able to learn independently and develop skills such as time/project management, problem solving and critical thinking. Education should not be narrowly vocational. The curriculum needs to teach children how to study and think. Lifelong learning starts at school and the EPQ will make students better at picking up these essential skills later in life.

The EPQ is a qualification worth half an A-level and students choose the topic they will explore. They will develop a project title and carry out in depth research in a chosen area.

They can choose from: -

- · writing a dissertation or report.
- · carrying out a scientific investigation.
- creating an artifact (art, music, model).
- delivering a performance.

At the end of the project they will carry out a critical review of their progress. We believe that students who complete the EPQ are more prepared to take up their place at university and in their career. The EPQ will massively support applications to top universities with some institutions offering lower offers to those who achieve an A in their EPQ. The EPQ also helps students to deliver strong personal statements and interviews, with universities recognising how students' passion for their subject comes through more naturally in their applications, whilst the EPQ also makes them better prepared for more research-based learning at university.

#### WHAT THE UNIVERSITIES SAY: -

#### **Cambridge University**

"We welcome the introduction of the Extended Project and would encourage you to undertake one as it will help you develop independent study and research skills and ease the transition from school/college to higher education."

#### University of Manchester

"The skills that students develop through the Extended Project are excellent preparation for university-level study. Students can refer to the Extended Project in their UCAS personal statements and at interview to demonstrate some of the qualities that universities are looking for."







#### **CO-CURRICULAR ACTIVITIES (CCAs)**

The CCA programme for the Sixth Form has been developed to allow students to explore and develop their interests in a range of different areas, as well as developing soft skills that will be vital at university and beyond. Students are encouraged to sign up for a balanced programme of activities, including academic sessions, sports and service.

Some of the exciting CCA opportunities available for Sixth Form students include:

- Academic Enrichment;
- Trinity Public Speaking or Debating Award;
- Prep School tutoring;
- Senior Sports Teams.

We also encourage student initiative within the Sixth Form. Our Prefects will support any Sixth Form student who is keen to set up and run their own CCA. Student-led CCA initiatives include Debate Society, Eco Club and the recently-formed TED Ed Club.

#### STUDENT LEADERSHIP OPPORTUNITIES

Students are actively encouraged to shape the world around them during their time in the Sixth Form at ECiM. There are numerous opportunities for student leadership, ranging from organising the House Council to tutoring younger students in the Prep School. The College Prefects hold an important position in the College, each chairing a committee within the remit of their Prefect role, such as Academic, Food, International, Service, Social and Wellbeing, as well as one overarching College Committee. Students in Lower Sixth are encouraged to join these committees, along with students from younger years, to help develop their leadership skills. The Prefects meet on a weekly basis with the Headmaster or the Head of Sixth Form to discuss issues and concerns, as well as the development of new student-led initiatives.







# COMMENT FROM THE HEAD OF COLLEGE AND DEPUTY HEADS OF COLLEGE (2019-20)

Epsom College in Malaysia is far more than just a school: it is a comfortable home where students are cared for and looked after by able staff; it is a safe and stress-free environment where students undertake various different activities to better themselves. My time here at Epsom has allowed me to vastly broaden my horizons, and provided me with countless opportunities to try things I would never have dreamed of. Be it drama, music, art or sports. Epsom is equipped with the facilities to ensure a wholesome, all-rounded learning experience.

Here in Epsom, we aim to produce future leaders. The Sixth Form prepares students for university and beyond, by cultivating leadership and teamwork skills, as well as constantly pushing us outside our comfort zones. I am honoured to be one of Epsom's founding students and I look forward to continue seeing the positive advancement of the College.

ALEA NI YANG, HEAD OF COLLEGE



It is an absolute pleasure to have been part of Epsom College for the past five years. Spending my adolescent years at Epsom has helped to develop my interpersonal skills and academic abilities. The College provides an encouraging and warm environment which helps nurture pupils into kind, confident adults. Similarly, the Sixth Form is a supportive community where sixth formers can easily reach out to teachers, tutors and other students.

I am extremely grateful for all the opportunities the College has provided me and has made the last five years of my life the most enjoyable.

CHANEL NG. DEPUTY HEAD OF COLLEGE

As a founding member of ECiM's student body, I am honoured and privileged to be part of the ongoing evolution of this respected College. From my journey through Carr House, and as a current member of Propert House, I have grown and matured into a proud and responsible young adult. The nurturing environment created through the boarding system allows students to develop academically and socially, while ensuring their physical and mental wellbeing is supported.

BEN CORY, DEPUTY HEAD OF COLLEGE





## A-LEVELS AT ECIM

#### **OPTIONS**

The subjects initially offered for A-level at ECiM for the academic year 2020/2021 are as follows: Accounting, Art and Design, Biology, Business Studies, Chemistry, Computer Science, Drama, Economics, English Literature, Geography, History, Mathematics, Further Mathematics, Music, Physics, Politics.

The College recommends its 3 A-level programme for its students, along with the benefit of a complementing EPQ. This allows them to maximise their potential for obtaining the best possible grades that are required by universities. Some students choose to add Further Mathematics as a fourth A Level. Additional support is offered for Sixth Form students with EAL needs, as well as for those students who need to sit IELTS tests for study at universities abroad.

On arrival at the College in August, students will meet individually with the Sixth Form Team to discuss the best academic programme for them. This discussion and the advice given will be based on the student's College entrance test results (where relevant), their public examination results and their level of English language competency. It will also take into account individual student's aspirations for university study and future career. On the basis of this discussion, the Sixth Form Team will be able to formulate a timetable for each individual student that provides the best opportunity for academic success and personal development.







#### WHAT ARE UNIVERSITIES LOOKING FOR?

The top universities expect very high grades in all subjects. All universities will make an offer based on three subjects. Some universities will expect specific A-levels for some courses; for example, A-level Chemistry is essential for a medical application. Some universities list 'non preferred subjects which they will not recognise as part of an application. Many universities, especially the elite universities, will expect to see a real passion for the subject beyond the A-level syllabus. UK medical schools will also expect some form of hospital or voluntary work. Research into potential university courses should start now. Many universities visit the College - over 120 last year - and these sessions provide important information for students in selecting their university and course.

#### **FOUNDATION COURSES VS. A-LEVELS**

Many universities and educational providers offer Foundation courses as a way of entering an undergraduate degree course. There are a few factors to be aware of before deciding which pathway to take. Some universities will still expect a complete set of A-levels but they will usually lower the grade needed to be accepted on the Foundation course. Once on the course, students will be expected to achieve the required academic level to progress onto the degree course. Students should always ask what the completion rate is before signing up. Remember failure to pass the Foundation course could leave students with no qualifications to apply to other universities or on their curriculum vitae. A student opting for a Foundation course should be very clear on the course they want to study; a change of heart would mean that a student would probably have to re-start A-levels or commence a new Foundation course.

#### **DESTINATIONS OF ECIM STUDENTS**

There are many options available for further study. The vast majority of our students go to UK universities but an increasing number are applying for universities in the US, Canada, Australia and Europe.

Last year, the most popular universities among ECiM graduates were based in London, with students attending London School of Economics, University College London and Imperial College. Warwick, Manchester, Nottingham and Southampton were also popular destinations. 27% of the students achieved a place on a course ranked in the top ten in the UK. Popular subject choices included Economics, Mathematics and Law. A number of students went on to study one of many types of Engineering courses, including Mechatronic Engineering, Chemical Engineering, Electrical and Electronic Engineering, Biomedical Engineering and Mechanical Engineering. Students also headed further afield: two students have gone to study Computer Science at the University of Washington.

Some students opted to stay closer to home, choosing Malaysian-based universities with courses twinned with Heriot-Watt University in the UK. Not only did the students secure places on prestigious courses at excellent universities, they also, more importantly, are doing courses that they really want to study: 78% of students are going to the university that they chose on their UCAS application and are on their chosen course. This is a testament to the work of ECiM's Sixth Form team in advising students on the best academic route for them.







# MAKING THE RIGHT A-LEVEL CHOICES

Over the remaining pages you will find information about all of the A-level subjects we offer at ECiM. It is extremely important that a lot of time consideration goes into making the right choices. Students must ensure that they think about: -

- which subjects they enjoy and are most interested in
- which subjects they are achieving the best results in
- which subjects will support their aspirations for their chosen university courses and careers
- which subjects will develop skills that they feel will benefit them in the future.

Students must also seek the advice of their teachers and family. If you require any information that is not included in this booklet then please do not hesitate to contact one of the Sixth Form team via email or in person. Our email addresses can be found below: -

#### **JON BARKER**

ASSISTANT HEAD (SIXTH FORM) jon.barker@epsomcollege.edu.my

#### **KATE CARDEN-BROWN**

HEAD OF HIGHER EDUCATION

kate.carden-brown@epsomcollege.edu.my

# **Accounting**

Through the study of Accounting, students develop an understanding of the role of an accountant, as well as developing some of the key skills needed for the role. Students develop both knowledge and understanding of accounting techniques and concepts. Students develop the ability to produce accounting reports and to then use those reports to solve problems and make decisions based on relevant stakeholders.



#### **EXAM INFO**

Accounting is 100% exam-based. In those exams, students through a mixture of question types are required to problem solve, analyse and interpret material that is presented to them. The exams are focused on the accounting systems as well as costing and management accounting.

#### **WHY CHOOSE**

The Accounting syllabus is designed to give students the skills that are required for reading Accounting at Higher Education, but to also develop skills for a wide range of other subjects, as well as to be able to recognise the ethics around accounting and how it involves presenting a true and fair representation of information .



You have to understand accounting and you have to understand the nuances of accounting. It's the language of business and it's an imperfect language, but unless you are willing to put in the effort to learn accounting - how to read and interpret financial statements - you really shouldn't select stocks yourself."

Warren Buffett

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Accounting A-level supports anyone who wishes to read an accounting-related subject at university or go into accountancy and/or business in the future. Students studying Accounting at A-level typically go on to read Accounting and Finance; Business Management or Economics at university. However, studying Accounting at A-level may also simply offer students an understanding in accounting for future work with businesses in whatever guise.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Minimum of grade B in Mathematics and/or Accounting at SPM.



# **Art and Design**

#### Head of Department - Mr Joe Daly

The creative industries are the fastest growing economic sector in the UK, responsible for 5.6% of jobs, and worth £76.9bn to the UK economy

UK Gov 2013

Art & Design at Epsom enables students to explore a broad range of 2D and 3D approaches. The Initial emphasis is on developing a working knowledge of materials, practices and technology in disciplines that include drawing, painting, sculpture and new media. The course also develops an understanding of the place of art, craft and design in history and contemporary society. In the latter stages there is an open, creative approach and students are encouraged to develop individual skills as fully as possible through personal projects and study. Students are not advised to take this course alongside A-level Design Technology/3D Design

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

A-level Art is a well-respected course at most universities. If you are in any doubt contact the institution you are interested in. The usual progression to Art and Design courses at university is via an Art Foundation course. Careers in design, advertising, publishing, events organisation, architecture, museums, theatre work, gallery work, marketing, photography and the media. The study of Art and Design will also help you develop transferable skills in visual communication which you can take into any career.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

(I)GCSE/SPM Art Grade C/5 and above, or a portfolio of work which demonstrates an aptitude for creative expression and an enthusiasm for visual arts.

Art is a subject in which there are no boundaries; students are able to explore in depth a range of different mediums as well as Artists and Designers to further enhance their skills and understanding of the subject. Independence is a key factor that separates A-level and GCSE as well as the freedom which allows students to step outside their comfort zone and explore potential interests and ideas.

A Level student

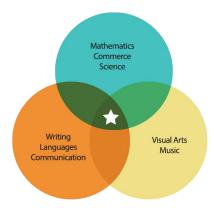
#### **EXAM INFO - AQA 7200**

Art & Design is a 2 year linear course divided into two units of work. The Portfolio makes up 60% of the A-level grade. In the second year, students will produce an exam piece accounting for 40% of the A-level grade. Both units are combined for a full A-level Grade which is internally marked and externally moderated at the end of year exhibition.

Teaching methods: Practical sessions, discussion groups, tutorials, presentations, opportunities to develop skills through additional classes such as oil painting, life drawing, digital workshops and a series of enrichment trips working with artists and designers.

#### **WHY CHOOSE**

- The internet has created an explosion of opportunity for digital designers and multimedia artists.
- Fine artists can reach a worldwide market at the click of a button.
- High school students can achieve recognition while studying.
- Those with a wide skill set have an advantage, in any career.
- Art marks are not solely dependent on an exam.
- According to a study carried out by James Catteral, a leading professor and Chair of Faculty at UCLA, studying Art improves performance in other subjects. His research demonstrates that involvement in the arts (both Visual and Performing) is associated with higher levels of attainment in both secondary school and university. Art enhances fine motor skills, hand-eye coordination, problem solving skills, lateral thinking, complex analysis and critical thinking skills. No matter what career you choose, those who can arrange, present and display material in a way that is aesthetically pleasing have an advantage.
- Arts students are highly sought-after by employers. Many employers now actively seek those who have studied the arts. Steve Jobs, founder of Apple, was fond of saying his success was due to his hiring artists and musicians fascinated by technology rather than computer geeks. Top talent management agency, The Curve Group concurs: "Employees with an arts degree have developed more quickly in their roles from the start. They have discipline, confidence and can accept criticism."



# **Biology**

#### Head of Department - Mr Mohamed Aden

Put simply, Biology is the scientific study of life: as such it encompasses the investigation of living organisms and life processes from the molecular, through cells and individual organisms to populations and whole communities of animals and plants.

#### **EXAM INFO - EDEXCEL INTERNATIONAL A-LEVEL**

#### **Assessment**

The course is modular. Assessment will be done by external examinations: Papers 1-3 at the end of Lower Sixth, and Papers 4-6 at the end of Upper Sixth.

#### Paper 1

- Molecules
- Diet
- Transport
- Health

#### Paper 2

- Cells
- Development
- Biodiversity
- Conservation

#### Paper 3

Practical Skills: the experimental procedures and techniques from Units 1 and 2.

#### Paper 4

- Energy
- Environment
- Microbiology
- Immunity

#### Paper 5

- Respiration
- Internal Environment
- Coordination
- Gene Technology

Practical Skills: the experimental procedures and techniques from Units 4 and 5.

#### **WHY CHOOSE**

Studying biology gives you the skills and opportunities to advance human knowledge and understanding in today's world, in order to make a difference to tomorrow's world.



#### **HOW IT SUPPORTS**

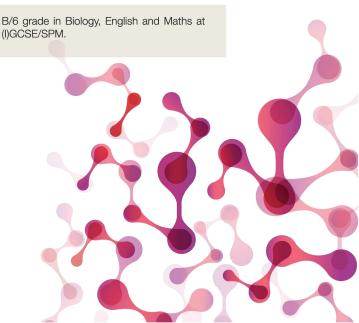
#### **HE AND CAREER ASPIRATIONS**

Studying biology teaches us to ask questions, make observations, evaluate evidence, and solve problems. These transferable skills open a lot of job opportunities and gives you A level of employability that not many other subjects

Biologists learn how living things work, how they interact with one another, and how they evolve. They may study the evolution, natural history, and conservation of plants and animals; investigate the interactions of living organisms with light, the environment, or each other; or have careers in pharmaceuticals, biotechnology or medical research. Biology gives you level of employability that other subjects don't.

#### RECOMMENDED

#### **ENTRY REQUIREMENTS**



## **Business Studies**

#### Head of Department - Mr Darren Nichols

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

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

The study of strategic decision making should build on the study of decision making in the functional areas.

Students should consider:

- the impact of technology on strategic decision making
- the influences of Corporate Social Responsibility, ethical and environmental issues on strategic decisions
- the difficulties in forecasting future trends
- the importance of assessing feasibility and risk when making strategic decisions
- the impact on stakeholders of strategic decisions and their response to such decisions

The topics lend themselves to studying and engaging with the business world. The specification and assessment should encourage students to follow business developments and think critically about contemporary business issues. Most of the assessment material is based on real business situations. By examining and thinking critically about real business situations as they study the subject, students will gain an insight into different contexts which will help them to understand the key issues in any situation and compare and contrast this with other situations and apply their understanding.

#### **WHY CHOOSE**

It encourages students to acquire a range of important and transferable skills such as:

- data skills students will be expected to manipulate data in a variety of forms and to interpret their results
- presenting arguments and making judgements and justified recommendations on the basis of the available evidence
- recognising the nature of problems, solving problems and making decisions using appropriate business tools and methods
- planning work, taking into account the demands of the task and the time available to complete it
- conducting research into a specific theme in preparation for one or more tasks
- challenging their own assumptions using evidence that has become available.

The skills students learn include:

- the practical application of business concepts and reinforcing students' understanding of theories and concepts
- active rather than passive understanding of the subject
- entrepreneurship, customer service, emerging markets, globalisation and migration
- research and extended written responses

#### **EXAM INFO - AQA ADVANCED GCE IN BUSINESS (7132)**

#### Paper 1 -

#### Business 1: 2 hours, 33.3% of A Level

Three compulsory sections: Section A has 15 multiple choice questions (MCQs) worth 15 marks. Section B has short answer questions worth 35 marks. Sections C and D have two essay questions (choice of one from two and one from two) worth 25 marks each.

#### Paper 2 -Business 2: 2 hours, 33.3% of A Level

Three data response compulsory questions worth approximately 33 marks each and made up of three or four part questions.

#### Paper 3 -Business 3: 2 hours, 33.3% of A Level

One compulsory case study followed by approximately six questions.

There are no secrets to success. It is the result of preparation, hard work, and learning from failure.
-Colin Powell

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

A-level business studies looks great to any employers as it shows you have a background information into how a business works, so you are automatically considered for higher positions.

Possible career choices with A-level business studies include management, marketing, finance, accounting, banking, retailing, manufacturing and local government.

#### RECOMMENDED

#### **ENTRY REQUIREMENTS**

None: open to all.

# Chemistry

#### Head of Department - Mr Spencer Cheng

Chemistry is the study of matter and materials, and the changes that they undergo. It helps us understand the natural world and gives solutions to numerous problems faced by humanity. It enables us to make products that enhance and enrich our everyday lives – including medicines, materials for electronics, clothing, cosmetics, toiletries, polymers, fuels and food

#### **EXAM INFO - EDEXCEL INTERNATIONAL A-LEVEL**

#### **Assessment**

The course is modular. Assessment will be done by external examinations: Papers 1-3 at the end of Year 12, and Papers 4-6 at the end of Year 13.

#### Paper 1

- Formulae, Equations and the Amounts of Substance
- Atomic Structure and the Periodic Table
- Bonding and Structure

#### Paper 2

- Energetics
- Intermolecular Forces
- Redox Chemistry and Groups 1, 2 and 7
- Introduction to Kinetics and Equilibria

#### Paper 3

Practical Skills: the experimental procedures and techniques from Units 1 and 2

#### Paper 4

- Energetics
- Entropy and Energetics
- Chemical Equilibria
- Acid-base Equilibria
- Organic Chemistry: Carbonyls, Carboxylic Acids and Chirality

#### Paper 5

- Redox Equilibria
- Transition Metals and their Chemistry
- Organic Chemistry: Arenes
- Organic Nitrogen Compounds: Amines, Amides, Amino Acids and Proteins
- Organic Synthesis

#### Paper 6

Practical Skills: the experimental procedures and techniques from Units 4 and 5"

#### **WHY CHOOSE**

Chemistry underpins a broad range of disciplines and a career in the chemical sciences offers huge opportunities that can be extremely rewarding, both personally and financially.

#### Medicine Sales Forensics Auditor Computing Cosmetics Web design Environment Consultancy Food industry Armed services Biotechnology Chemistry Non profit Sector Nanotechnology Science writing Analytic services Management Further Education Accountance Academia Publishing Reseach Marketing Tutoring Policy Teaching

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Chemistry is important today, but it will be even more so in tomorrow's world. Science and science-based jobs are needed to create a sustainable future for the planet. Chemistry will be vital to meet the challenges that we will face - green energy sources, ensuring clean water is available to all, meeting the growing demands for food and raw materials for an ever-increasing population. As society changes, the knowledge and skills that chemical scientists possess will ensure that they are always in high demand.

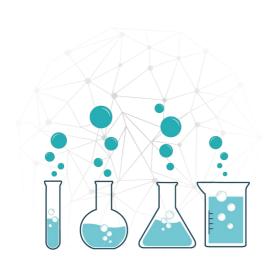
The student of chemistry also learns lots of skills that are highly valued by employers. Numeracy, problem-solving, data handling, analysis, observation, team working and report writing are all developed and strengthened through studying chemistry, for example, careers in healthcare, teaching, aerospace, law, telecommunications, publishing, business and finance, and information technology.

With the increasing globalisation of economies, the skills acquired in chemistry will also allow greater mobility in the global jobs marketplace. Growing economies such as India and China will have strong science-based industries.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

B/6 grade in both Chemistry and Mathematics at (I)GCSE/SPM.



## Drama

#### (open to both performance and technical/design candidates)

#### Head of Department - Mr Ted Moore

Drama A-level is a balanced (and brilliant) mixture of theory and practical work packed full of transferable skills. Whether you want to be a Doctor, a Lawyer, a CEO, a designer, a director or a performer; this course offers you the ability to develop crucial skills that will help prepare you for a very wide range of degrees and professions. It can really make you stand out from a purely academic crowd.

Lt is in Apple's DNA that technology alone is not enough—it's technology married with liberal arts, married with the humanities, that yields us the results that make our heart sing.



Steve Jobs, in introducing the iPad 2 in 2011



A broad education in the arts helps give children a better understanding of their world...We need students who are culturally literate as well as math and science literate

Paul Ostergard, Vice President, Citicorp

#### **EXAM INFO - CAMBRIDGE INTERNATIONAL DRAMA (9482)**

#### Component 1:

#### Written Exam (2 hrs): 25%

- Exploration of performance, direction and design choices for two set texts.
- Consideration of original performance context.

#### Component 2:

#### Practical Drama (Coursework): 25%

- 10-15 minute group devised performance with 3 minute self evaluation - based on stimulus provided.
- 10-25 minute group scripted performance.

#### Component 3:

#### Theatre Making and Performing (Coursework): 25%

- 15-20 minutes group devised performance inspired by practitioners, styles or traditions; accompanied by 800 word analysis and evaluation.
- 6-8 minute individual performance of three or more linked texts

#### Component 4:

#### Theatre in Context (Coursework): 25%

- 2500-3000 research essay.
- Self-chosen area of study encompassing the full range of practical, historical and stylistic elements."

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

- In a recent study of 3 top UK universities, 60% of law undergraduates had studied Drama A-level
- A visiting university recruiter for medical school commented that he'd consider Drama A-level "a positive additional A-level as it suggests students have the empathy and public speaking skills to work well with patients and present at conferences etc."
- As part of balanced selection, Drama & Theatre does not shut off any options and can be an advantage for a wide range of careers including (but not limited to): Medicine, Law, Business/Economics, Psychology, Literature, International Relations, Management, Languages and of course Drama and other creative industries.
- Essentially it is a great choice for anything creative; anything requiring research, empathy or collaboration and anything where you might have to actually talk to other people or consider their perspective!

#### **WHY CHOOSE**

- Suitable for a range of future professions and specialisms
- Develop transferable skills: Confidence and self-presentation, analytical skills, self-discipline and an ability (hopefully) to handle criticism. You will also be used to working in a team and have developed good research skills, as most courses tend to involve a major research project or dissertation.
- Explore and develop expertise in the theory and practice of the theatre.
- Extend your creative skills (performance, set, puppetry, lighting or sound
- Do something different make your working week more interesting, develop a life-long passion and have something unique to talk about in your university interviews to stand out from the crowd.



In my own philanthropy and business endeavors, I have seen the critical role that the arts play in stimulating creativity and in developing vital communities....the arts have a crucial impact on our economy and are an important catalyst for learning, discovery, and achievement in our country.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

- GCSE Drama can be an advantage but not essential.
- Some prior experience with drama or theatre (e.g. school play).
- B/5 or above in English (Language or Literature) is recommended.



GE hires a lot of engineers. We want young people who can do more than add up a string of numbers and write a coherent sentence. They must be able to solve problems, communicate ideas and be sensitive to the world around them. Participation in the arts is one of the best ways to develop these abilities

# **Computer Science**

#### Head of Department - Mr Arnol Salas

In the past ICT was about how to use computers and software effectively. Computer Science is not the same!

Computer Science is the subject of understanding how computers work, and learning skills and techniques to build and change their programs. This has two aspects to it: theory and programming.

On the theory side you will gain a vast understanding of how computers and technology work, from how the processor and memory work together to run applications to how the computer builds documents, images, sounds and videos by using electronic signals. You will also gain an understanding of different types of hardware, communication technology and networks, and security, privacy and data integrity.

On the programming side you will break down problems into manageable solutions and design and create algorithms to help you successfully build a program for specific needs. You will learn and develop your programming skills using the language Python, and understand how other languages work and can be used for different types of developments.

66 Everyone should learn how to code, it teaches you how to think.

Computers are going to be a big part of our future...and that future is yours to shape.

Barack Obama

# EXAM INFO - CIE INTERNATIONAL A-LEVEL COMPUTER SCIENCE (9608)

#### **Unit 1 - Theory Fundamentals**

Externally assessed exam - 1hour 30mins - 25%

#### Unit 2 - Fundamental Problem-solving and Programming Skills

Externally assessed exam - 2 hours - 25% This paper is based on pre-release materials.

#### **Unit 3 - Advanced Theory**

Externally assessed exam - 1hour 30mins - 25%

#### Unit 4 - Further Problem-solving and Programming Skills

Externally assessed exam - 2 hours - 25% This paper is based on pre-release materials.

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Every industry uses computers so naturally computer scientists can work in any. Problems in science, engineering, healthcare, and so many other areas can be solved by computers. It is up to the computer scientist to figure out how, and design the software to apply the solution.

The computer science course will teach you problem solving skills and independent working techniques that will support any course at university.

Did you know:

- Computer Science graduates are among the highest earners in the UK.
- Computer Science is recognised by all Russell group universities as a credible and worthwhile qualification.

#### **WHY CHOOSE**

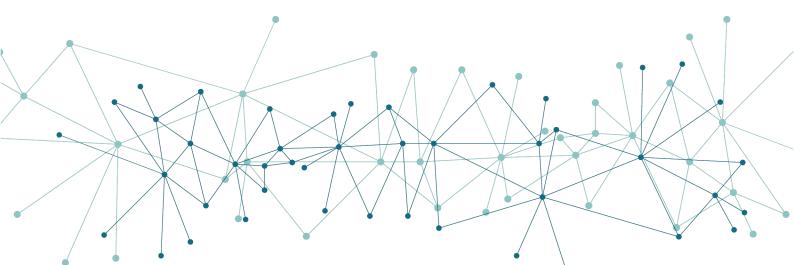
Like it or not you're living in it – this is the Digital Age. Computer programmes have infiltrated every aspect of our lives. Computer scientists theorise, design, develop, and apply the software and hardware for the programmes we use day in day out – sounds pretty important to us. The course is designed to teach skills appropriate to allow you to be successful in all aspects of your life. You will learn more about the technology you already use on a day to day basis, both how it works and how you can program it for different purposes.

If you have an interest in technology, want more of an understanding of how it works and learn skills to change and program it, then this is the course for you!

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

It is not a requirement to have studied Computer Science at (I)GCSE or SPM, however a grade B/6 or higher at Maths is needed to study the course.



## **Economics**

#### Head of Department - Mr Darren Nichols

Do you want to explore the relationship between an individual's decisions and local economics? Or maybe how economic policy makers can affect change on the national or global stage? As well as developing an appreciation of fundamental principles of economics, you will also hone your analytical thinking and problem solving skills.

#### **EXAM INFO - AQA**

#### **Lower Sixth**

- Operation of markets and market failure. This area of study covers topics like
  the economic problem and economic methodology; price determination in a
  competitive market; production, costs and revenue; competitive and
  concentrated markets; and the market mechanism, market failure and
  government intervention in markets.
- The national economy in a global context. This area of study covers topics like
  measurement of macroeconomic performance; how the macro economy
  works: the circular flow of income, aggregate demand/aggregate supply
  analysis and related concepts; and economic performance and
  macroeconomic policy.

#### **Upper Sixth**

- Individuals, firms, markets and market failure. This area of study covers topics like individual economic decision making; production, costs and revenue; perfect competition, imperfectly competitive markets and monopoly; the labour market; the distribution of income and wealth: poverty and inequality; and the market mechanism, market failure and government intervention in markets.
- The national and international economy. This area of study covers topics like
  the measurement of macroeconomic performance; how the macroeconomy
  works:the circular flow of income, AD/AS analysis and related concepts;
  economic performance; financial markets and monetary policy; fiscal policy
  and supply-side policies; and the international economy.

#### **Assessment**

Three two-hour written exams, each worth a third of the qualification. All three papers will include a range of question styles.

#### Paper 1

• Markets and Market Failure, 2 hours, 33% of the total qualification.

#### Paper 2

• National and International Economy, 2 hours, 33% of the total qualification.

#### Paper 3

• Economic Principles and Issues, 2 hours, 33% of the total qualification.

#### **WHY CHOOSE**

"Economics is fascinating to study because it is so applicable to everyday life. Why is the economy taking so long to recover from the financial crisis? Will the government be able to repay its mountain of debt? There are very few subjects that you can study during the day and see the relevance of what you've learned on the news at night."

- Karen Ward Senior Global Economist, HSBC

"Economics is the most powerful of the social sciences. Its principles provide us with unparalleled analytical tools to interpret the world around us and to shine a light on all of the great challenges that face humanity – how to grow economies, tackle unemployment, grapple with environmental issues, reduce crime and even understand demographic change. If you are interested in current affairs, politics, history, business or finance, you must study economics."

- Allister Heath, Deputy Editor, The Daily Telegraph

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Studying economics will help you develop transferable skills that will prepare you for studying at university or moving into the world of work. These include skills in data interpretation and essay writing. Suitable higher education courses include economics degrees or degrees in applied economics such as environmental economics, labour economics, public sector economics or monetary economics. You might choose to study business economics, econometrics or a business and management degree. Economics students can follow a wide range of careers in industry, commerce, finance and the civil service.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Grades of 6/B or above at GCSE/SPM Maths and English.



# **English Literature**

#### Head of Department - Mr Russell Smith

- We study eight texts over the course of the Sixth Form.
- We study four texts in each year and students will sit four exams at end of Upper Sixth.
- We study two units of poetry; two plays; two pre-twentieth century texts plus two novels.

#### **EXAM INFO - AQA/OXFORD LITERATURE IN ENGLISH**

- The assessment objectives carry equal weight within each component.
- Components are marked holistically using the same mark schemes.
- Each paper (including coursework) is worth 25% of the total marks and each question carries equal marks.

#### **WHY CHOOSE**

Studying English Literature helps learners bridge the gap between the next stage of education and the world of work. We encourage our students to be:

- confident in working with information and ideas their own and those of others
- responsible for themselves, responsive to and respectful of others reflective as learners
- innovative and equipped for new and future challenges
- Engaged both intellectually and socially and ready to make a difference.

Successful Literature students develop a lifelong understanding and enjoyment of literary texts, and, importantly, gain a range of essential skills including:

- the ability to write clearly and effectively
- the ability to develop arguments
- the ability to research and manage information
- the ability to analyse complex texts in different forms and styles.

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Literature is a preferred entry requirement for professions such as: law; journalism; politics; media; marketing and advertising. It is a future proof qualification that shows clear evidence of research and creative personal engagement.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Ideally a B/6 at both English (First) Language & English Literature (I)GCSE/SPM.

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

T.S. Eliot, Four Quartets

As A-level English teachers, we aim to make our students better readers, writers, listeners, and speakers. We encourage them not merely to read for literal meaning, but to think critically and interpretively about an author's audience, background, purpose, and rhetorical strategies. Put simply - we learn to take pleasure in the construction of a writer's imagination.

We teach students to read for an investigative comprehension of essays, novels, plays, and poems. They learn to write not only by adhering to conventions of rhetoric, spelling, grammar, and paragraph structure, but also by finding and displaying their emerging voices in compositions that express clear, distinctive ideas.

We teach our students to proofread, edit, and revise their work. They learn the principles of research; how to actively weigh the quality of sources and accurately document those sources.

We strive to shape our classroom into seminars where groups of students pay close attention to texts, learn to make perceptive contributions to class discussion and listen to each other while inquisitively sharing responses to literature. In a climate of collaboration and respect, we hope our students learn how to think, write, and speak independently with logic, conviction, and imagination.

# Geography

#### Head of Department - Mr John Foden

"Geography is not only up-to-date and relevant, it is one of the most exciting, adventurous, and valuable subjects to study today. So many of the world's problems boil down to Geography, and need the geographers of the future to help us understand them." (Michael Palin, President of Royal Geographical Society)

Global warming; food and energy security; water conflicts; the degradation of land and soils from overuse and misuse; the spread of disease; the causes and consequences of migration; and the impacts of economic change on places and communities. These are just some of the challenges facing current and future generations, which geographers must help to overcome.

Sixth Form geographers take a lead in the production of the school's Geography magazine: Epsom Geographic (www.tinyurl.com/epsomgeographic). Students are also encouraged to participate in essay competitions, such as the Royal Geographical Society's Young Geographer of the Year; Cambridge Humanities Writing Competition; and Oxford's Stanton Essay Prize.



#### **EXAM INFO - PEARSON EDEXCEL GEOGRAPHY**

#### Paper 1 (Physical Geography)

- Written examination
- · 2 hours and 15 minutes
- 30% of the qualification
- 105 marks

#### Paper 2 (Human Geography)

- · Written examination
- 2 hours and 15 minutes
- 30% of the qualification
- 105 marks

#### Paper 3 (Synoptic Geography)

- Written examination with a resource booklet
- 2 hours and 15 minutes
- 20% of the qualification
- 70 marks

#### **Independent Investigation**

- Non-examined coursework assessment
- 20% of the qualification
- 70 marks

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Desired grades are 6/B or above at GCSE/SPM Geography, Maths, English and Sciences.

As a young man, my fondest dream was to become a geographer. However, while working in the customs office, I thought deeply about the matter and concluded that it was far too difficult a subject. With some reluctance, I then turned to physics as an alternative.

Albert Einstein

#### **WHY CHOOSE**

Geographers are highly employable due to the wide variety of skills that they have developed and it is often those skills that have been developed, rather than the subject knowledge itself, that leads geographers into those jobs.

Through studying Geography, students develop skills that include: essay-writing; problem-solving; numerical analysis; spatial data analysis; self-management; presenting; computer modelling; data collection; creative thinking through debating moral and ethical issues; articulating abstract concepts; teamwork; and ICT.

Fieldwork is an essential part of the A-level course, which is why we travel to Langkawi for a few days each year. Here, students enjoy experiencing and studying the coastal landscape, while also appreciating the changes that have occurred to the human environment in recent years and the changes that are currently occurring.

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

The Russell Group report, published in 2011, names Geography as one of the eight facilitating A-level subjects. This is a subject most likely to be required or preferred for entry to degree courses and choosing facilitating subjects will keep more options open to students at university. Some students use Geography as an extra science subject; some use it as an extra arts subject; while others use it to bridge a combination of both sciences and arts.

The Telegraph newspaper identified Geography as one of ten "recession-proof" subjects at university, due to the wide range of skills that are developed and, as a consequence, the low unemployment rate amongst Geography graduates. These skills are highly sought after by companies and Geography graduates enter a wide range of fields on completion of university. Geography graduates enter a wide range of professions: law, accountancy, banking, journalism, publishing, administration, retailing, education, resource management - the list is almost limitless.

Overall, Geography is renowned for its academic robustness and for helping young people into the world of work.

The great challenges of the 21st century are geographical in their formulation, analysis and consequence, and they transcend the physical/social divide

Times Higher Education

Geography is a subject which holds the key to our future

Michael Palin

## **Mandarin Chinese**

#### Head of Department - Mrs Wen Li Leighton

The A-level Chinese specification will allow students to develop an appreciation of the language, literature, film and culture of the Chinese-speaking world. Students will be encouraged to develop ideas and use the language to persuade and analyse and give critical responses on inspiring and engaging themes in their writing and speaking. It will also help to prepare students for higher education and enhance their employability profile as the main aims and objectives of this qualification are to enable students to:

- enhance their linguistic skills and promote and develop their capacity for critical thinking on the basis of their knowledge and understanding of the language, culture and society of the country or countries where the language is spoken;
- develop control of the language system to convey meaning, using spoken and written skills, including an
  extended range of vocabulary, for both practical and intellectual purposes as increasingly confident, accurate
  and independent users of the language;
- develop their ability to interact effectively with users of the language in speech and in writing, including through online media;
- develop language learning skills and strategies, including communication strategies to sustain communication and build fluency and confidence;
- engage critically with intellectually stimulating texts, films and other materials in the original language, developing an appreciation of sophisticated and creative uses of the language and understanding them within their cultural and social context:
- develop knowledge about matters central to the society and culture, past and present, of the country or countries where the language is spoken;
- mediate between cultures and between speakers of the language and speakers of English;
- foster their ability to learn other languages.

#### **EXAM INFO - EDEXCEL**

A level Chinese is a fully linear qualification. This means that all examinations must be sat (and the speaking assessment conducted) at the end of the course.

There are 4 themes in A level Chinese:

#### Theme 1

The Change of Modern China;

#### Theme 2:

Chinese Culture:

#### Theme 3:

Chinese Society:

#### Theme 4:

Chinese Reform since 1978.

The content of these themes is assessed in Paper 1 (listening, reading and translation), Paper 2 (the writing paper) and Paper 3 (speaking).

Moreover, at A level students will also be required to undertake an Independent Research Project, which will be assessed in the second part of the speaking exam.

China is one of the world's oldest and richest continuous cultures, with over 5,000 years of historical tradition. China is also the most populous nation in the world, with over 1.3 billion people. One fifth of the planet speaks Chinese and Mandarin Chinese is the mother tongue of 873 million making it the most widely spoken first language in the world. The English Language is spoken by more people globally, but many of these speakers have English as a second or third language.

In addition to the People's Republic of China and Taiwan, Mandarin Chinese is also spoken in the important and influential Chinese communities of Indonesia, Thailand, Malaysia, Singapore, Brunei, the Philippines, and Mongolia.

#### **WHY CHOOSE**

Skills gained:

- Autonomy, resourcefulness, creativity, critical thinking, and linguistic, cultural and cognitive flexibility that will enable them to proceed to further study or employment;
- Develop the capacity for critical and analytical thinking through the language of study;
- Ability to learn other languages, such as French, Portuguese or Italian;
- Develop as independent researchers through the language of study;
- Presentation and communication skills.

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Knowing Chinese may give you an edge in the local or international job market when competing for an important position. International businesses prefer to hire people who speak more than one language. China has become a huge market, and business leaders are looking for people who can speak Chinese and operate successfully in a Chinese cultural context. In addition Chinese businesses and the Chinese government are increasingly active on the global stage, with China occupying a permanent seat on the UN Security Council and building global trade links from Asia to Africa and Latin America. As China opens up to the West, there are opportunities for employment in all areas.

#### RECOMMENDED

#### **ENTRY REQUIREMENTS**

B/6 or above at (I)GCSE/SPM.

# **History**

#### Head of Department - Mr James Dale

A-level History provides a broad, coherent and satisfying course of study for students.

The specification requires students to study:

- the history of more than one country or state or the history of more than one period
- aspects of the past in breadth, through periods or themes, and in-depth
- significant individuals, societies, events, developments and issues within a broad historical context
- · developments affecting different groups within the societies studied
- a range of appropriate historical perspectives, for example: aesthetic; cultural; economic; ethnic; political; religious; scientific; social or technological.

why we are the way we are. 99

• it contains a substantial British History requirement and a study of Russian History covering more than 100 years.

66 History is who we are and

- it promotes an understanding of change and development over time
- the Historical Enquiry unit is deliberately left until late in the course, when students have the intellectual maturity to benefit fully from the exercise, which will also prepare students for progression to higher education

A-level assessment is a combination of a written examination and a piece of coursework which is internally marked and externally moderated.

#### **EXAM INFO - AQA A-LEVEL HISTORY (7042)**

#### Paper 1: Breadth Study - Tsarist and Communist Russia (1855-1964)

This option allows students to study in breadth issues of change, continuity, cause and consequence in this period through the following key questions:

- How was Russia governed and how did political authority change and develop?
- Why did opposition develop and how effective was it?
- How and with what results did the economy develop and change?
- What was the extent of social and cultural change?
- How important were ideas and ideology?
- How important was the role of individuals and groups and how were they affected by developments

#### Assessment:

Written Paper, 2 hours 30 minutes, 80 marks, 40% of final grade

- One compulsory question linked to historical interpretations (30 marks)
- Two essay questions from a choice of three (25 marks each)

#### Paper 2: Depth Study - The Making of Modern Britain (1951-2007)

This option provides for the study in depth of the key political, economic, social and international changes which helped to mould Britain in the second half of the 20th century. It explores concepts such as government and opposition, class, social division and cultural change. It encourages students to reflect on Britain's changing place in the world as well as the interrelationship between political policies, economic developments and political survival.

#### Assessment:

Written Paper, 2 hours 30 minutes, 80 marks, 40% of final grade

- One compulsory question linked to primary sources (30 marks)
- Two essay questions from a choice of three (25 marks each)

#### **Paper 3: Historical Investigation**

A personal study based on a question of the student's choice. This should take the form of a question in the context of approximately 100 years. This year, students focused on the role of government during the Tudor period.

#### Assessment:

Coursework essay 3000-3500 words (40 marks) Marked by teachers and moderated by AQA

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

History is an adaptable subject and therefore suits many careers, here are a few:

- Heritage manager
- Historic buildings inspector or
- conservation officer
- Museum education officer
- Museum or gallery curator
- Museum or gallery exhibitions officer
- Secondary school teacher
- Academic librarian

- Archaeologist
- Archivist
- Broadcast journalist
- Civil Service administrator
- Editorial assistant
- Information officer
- PPC specialist
- Politician's assistant
- Solicitor

#### **WHY CHOOSE**

#### **Key Skills**

The ideal student has recently been defined as someone who is adaptive, responsible and reflective, as well as having high level analytical and problem solving skills. A number of key skills have been identified which have both intrinsic value and are regarded by employers as vital for the workplace.

- Communication (verbal and written)
- Analytical skills
- The use of management information technology
- Learning to learn; improving one's own learning and performance; working with others
- Numeracy/ application of numbers

#### Learning History, Learning Skills

History places particular stress on the development of independent thought and analytical skills, and requires excellent communication skills, namely high levels of literacy and oral presentation. Consequently, students following history courses will be expected to do a great deal of independent work and independent thinking, as well as a good deal of reading and writing. You have to present the results of research both in independent work and in the context of group discussions. The need to come to terms with unfamiliar periods and areas facilitates reflective and adaptable skills, empathy and imaginative insight within critical and methodological constraints. Learning to understand the political forces behind the development of Britain in the 20th Century or the Russian peasant in Russia is not only fascinating in itself, but a complex exercise and nurtures multiple skills, not least enabling you to learn to understand unfamiliar cultures and belief systems. These topics are therefore as relevant in terms of skills as the most recent history of your own country. In making your choices you should bear these factors in mind. For those who come convinced that only Twentieth Century History is relevant, think again!

You are required to master a variety of concepts in both halves of the course, in different formats, learning to deal with a wide intellectual and cultural range. Courses vary from general overviews at one extreme, to in-depth primary-source studies at the other. The former encourages understanding of historical process, with its mix of continuity and change; the latter sharpens the analysis of documentary and other material, developing research methods.

The History course requires students to interact with the political as well as social; early modern as well as contemporary; history of ideas as much as history of events. Each level, each topic, provides specific tasks and stretches the student in a different direction. Collectively, they reinforce each other and nurture the acquisition of complementary skills. History A-levels aim to widen the student's experience and develop qualities of perception and judgement, while fostering intellectual independence, sharpness and maturity

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Ideally B/6 grade or above at (I)GCSE/SPM History and B/6 in English (I)GCSE/SPM.

## **Mathematics / Further Mathematics**

#### Head of Department - Mr Jonathon Gilkes

The breadth of the applicability of mathematics is enormous, and for a large number of degree courses an A-level in Mathematics is an essential or desirable qualification. The study of Mathematics offers opportunities for creativity, team-working and communication, and for many careers it is the ability to explain complicated concepts clearly to a non-mathematical audience that is in demand.

#### **EXAM INFO**

This is a two year linear course (Edexcel) and will be assessed in the Summer of the Upper Sixth. There is no coursework component.

A-level Maths consists of 3 papers:

#### Course code 9MA0

Paper 1:Paper 2:Pure Mathematics 1Pure Mathematics 233%33%2 hours2 hours100 marks100 marks

Paper 3:

**Statistics and Mechanics** 

33% 2 hours 100 marks

Section A: Statistics 50 marks Section B: Mechanics 50 marks

A-level Further Maths consists of 4 papers:

#### Course code 9FM0

Paper 1:Paper 3:Further Pure Mathematics 1FM Option 125%25%1 hour 30 mins1 hour 30 mins75 marks75 marks

Paper 2: Further Pure Mathematics 2

25% 1 hour 30 mins 75 marks Paper 2: FM Option 2 25% 1 hour 30 mins

75 marks

Students take two optional papers:

- Further Statistics
- Further Mechanics

The options will be decided by the class teacher and the group.

More information on the specification and course content can be found at: https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html#tab-1

#### **WHY CHOOSE**

The skills gained from studying a science, technology, engineering or mathematics (STEM) subject at A-level or degree level are in demand by employers. Graduates with STEM degrees earn on average 5% to 10% higher salaries than the mean for all graduates.

A wide range of STEM and non-STEM subjects are underpinned by mathematics. Having a broad mathematical knowledge and secure technical ability will help the transition from sixth-form to higher education. Together with good mathematical skills, employers are looking for the ability to work in a team, communicate effectively and show initiative.

Find out more: http://www.mathscareers.org.uk/ How it supports HE and Career Aspirations

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**



#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

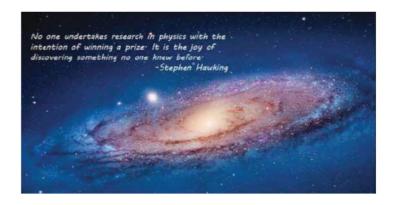
Minimum of grade A/7 at (I)GCSE/SPM Maths and a love for the subject.

# **Physics**

#### Head of Department - Ms Claudia Pinna

Unlike the other sciences, Physics has no limits – everything in your life, on this planet, on other planets, to the far reaches of this universe and beyond is in physics' job description.

Physics deals with the big questions: How do we search for aliens? Are there parallel universes? Will we ever travel back in time? Why do we always find the smallest bits of cereal at the bottom of the packet?



#### **EXAM INFO - EDEXCEL INTERNATIONAL A-LEVEL**

#### Assessment

You will be formally assessed at the end of Lower Sixth (Paper 1, 2 and 3) and at the end of Upper Sixth (Papers 4, 5 and 6)

#### Paper 1

- Mechanics
- Materials

#### Paper 2

- Waves
- Electricity

#### Paper 3: Practical Skills in Physics I

- Synoptic questions that may draw on two or more topics.
- Will assess conceptual and theoretical understanding of experimental methods based on Papers 1 and 2

#### Paper 4

- Further Mechanics
- Fields
- Electricity

#### Paper 5

- Thermodynamics
- Radiation
- Oscillations
- Cosmology

#### Paper 6: Practical Skills in Physics II

- Synoptic questions that may draw on two or more topics
- Will assess conceptual and theoretical understanding of experimental methods based on Papers 4 and 5

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

Physics is a seriously useful subject for the majority of STEM (Science, Technology, Engineering and Maths) careers and you'll find physicists everywhere, in industry, transport, government, universities, the armed forces, the secret service, games companies, research labs and more.

Physics is especially helpful for jobs that involve building things and developing new technologies, including: engineering (flight, buildings, space, you name it...), astronomy, robotics, renewable energies, computer science, communications, space exploration, science writing, sports and games technology, research and nanotechnology (that's engineering on a seriously tiny molecular scale).

Physics is highly valued by universities as an A-level choice. The Russell Group report, published in 2011, named Physics as one of the eight facilitating subjects. This is a subject most likely to be required or preferred for entry to degree courses and choosing facilitating subjects will keep more options open to you at university. In fact, Physics is second to only Mathematics in required subjects for degree courses (according to the Russell Group's guide entitled Subjects Required for Different Degree Courses).

#### **WHY CHOOSE**

Do you want to investigate the limits of space, the beginning of time and everything in between? How about understanding how the technology around you works? Want to save the planet or maybe just help people get better when they are ill? Or maybe you just want to earn lots of money? Whatever you do, the knowledge and skills you gain by studying physics will be useful. Physics is more than a subject – it trains your brain to think beyond boundaries.

Many students choose to combine physics with one of the other sciences such as chemistry or biology, while others who are thinking of becoming an engineer or architect combine physics with design-technology or art.

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

Grades B/6 or above at (I)GCSE/SPM in Physics and Mathematics.

## **Politics**

#### Head of Department - Mr James Dale

Any student who wants a full understanding of the world around them should consider Politics as an A-level subject. Consider the following:

- Is the UK actually democratic?
- Who should have the final say: politicians or judges?
- Why can't the UN manage to solve global crises?
- Which is the biggest threat facing the world today: climate change or terrorism?

The issues addressed in the A-level politics course are the same as those facing the world today. On this basis, students gain an invaluable understanding of life beyond school and university. As well as knowledge of key political issues, students are trained in key transferable skills of debate and discussion, analysis of complex information and building a strong argument.

#### **EXAM INFO - EDEXCEL POLITICS (9PLO)**

#### Component 1:

UK Politics - Written examination: 2 hours, 331/3% of the qualification, 84 marks

#### **Content overview:**

#### **Political Participation:**

students will study democracy and participation, political parties, electoral systems, voting behaviour and the media.

#### **Core Political Ideas:**

students will study conservatism, liberalism, socialism.

#### Assessment overview:

#### Section A:

Political Participation One

30-mark question from a choice of two (each question uses a source)

- students must complete one of these. Plus one 30-mark question from a choice of two.

#### Section B:

Core Political Ideas One 24-mark question from a choice of two

#### Component 2:

UK Government - Written examination:

2 hours, 331/2% of the qualification, 84 marks

#### Content overview:

UK Government:

students will study the constitution, parliament, Prime Minister and executive, relationships between the branches.

Non-core Political Ideas:

students will study one idea from the following: anarchism, ecologism, feminism, multiculturalism, nationalism.

#### Assessment overview:

#### Section A:

**UK Government One** 

30-mark question from a choice of two (each question uses a source) – students must complete one of these. Plus one 30-mark question from a choice of two – students must complete one of these.

#### Section B:

Non-core Political Ideas One 24-mark question from a choice of two.

#### **Component 3**

Comparative Politics (Global Politics option) - Written examination: 2 hours, 331/3% of the qualification, 84 marks.

#### Content overview:

Students who study Global Politics will study sovereignty and globalisation, global governance: political and economic, global governance: human rights and environmental, power and developments, regionalism and the European Union, comparative theories.

#### Assessment overview:

Section A: One 12-mark question from a choice of two.

Section B: One compulsory 12-mark question focused on comparative theories.

Section C: Two 30-mark questions from a choice of three.

#### **WHY CHOOSE**

Students will:

- develop knowledge and an informed understanding of contemporary political structures and issues in their historical context, both within the United Kingdom (UK) and globally
- develop a critical awareness of the changing nature of politics and the relationships between political ideas, institutions and processes
- develop knowledge and an informed understanding of the influences and interests which have an impact on decisions in government and politics
- develop knowledge and an informed understanding of the rights and responsibilities of individuals and groups
- develop the ability to critically analyse, interpret and evaluate political information to form arguments and make judgements
- develop an interest in, and engagement with, contemporary politics.

#### **HOW IT SUPPORTS**

#### **HE AND CAREER ASPIRATIONS**

How it supports HE and Career Aspirations

As a Politics student there will be many job options available to you when you graduate, both inside and outside the political world. Your studies will teach you how to be analytical, develop your writing and research ability, boost your confidence in expressing opinions articulately, provide political knowledge and deepen your understanding of human psychology and society. All of these things are invaluable to a range of employers, across many sectors. However, just because you study politics doesn't mean that you have to work in politics: 60% of graduates are in jobs not directly related to their degree subject. As a Politics student your grasp of psychology and society could fit you for a management trainee scheme, your writing skills for journalism or advertising, or your ability to construct an argument for law. More importantly, however, your studies will help you to develop into an active citizen, with the knowledge and enthusiasm to engage with the political system and make a difference in the world around you. Some possible career paths:

- Civil Service fast streamer
- Government social research officer
- Politician's assistant
- Public affairs consultant
- Public relations account executive
- Social researcher
- Charity officer
- Diplomatic Services operational officer
- Forensic accountant
- Human resources officer
- Local government officer
- Market researcher
- Marketing executive
- Newspaper journalist
- Public relations officer
- Stockbroker

#### **RECOMMENDED**

#### **ENTRY REQUIREMENTS**

A grade B/6 in English and a study of (I)GCSE/SPM History would be desirable but not necessary.

# **Notes**



# Notes



