

Eaton Square Senior School

Sixth Form

Course Descriptions 2023-24



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Introduction

The Sixth Form is an exciting stage in a young person's life. Our aim is to provide a curriculum which unlocks academic potential and instils a love of learning. Teaching and Learning are done in a collaborative environment of small groups where students progressively move from dependence at GCSE to independence as they prepare for life after school, whether at University or elsewhere.

Our Sixth Form Curriculum – an overview

At Eaton Square Sixth: students will take academic A-level subjects, a research project following the Extended Project Qualification, and our unique, bespoke Preparation for Life Programme. Additionally, for those who have opted not to do a full Mathematics A-level, but want to maintain and keep fresh their mathematical skills, we offer the opportunity to follow a certificated Mathematics in Context course.

A-level (Advanced Level) Programme

Students will typically follow three A-level subjects, which are 'linear' courses, meaning that they are examined at the end of the two years. Occasionally a student may study four or two. A student normally need a minimum of two A-levels passes to go to a UK University.





EPQ

Extended Project Qualification (EPQ) (AQA)

The Extended Project Qualification (EPQ) is popular with students and teachers alike. It provides an opportunity for students to extend their abilities beyond their sixth form course of study, stand out and prepare for university or their future career.

EPQ is an A-level standard standalone qualification designed to extend and develop students' abilities beyond the A-level syllabus and prepare for university or their future career.

It can be taken as an extension of other Level 3 qualifications or vocational qualifications and it is equivalent to half an A-level. It's recognised by universities and employers and many universities make lower A-level offers to students undertaking an EPQ.

How it works

The EPQ allows students to lead their own projects. Students get to plan and carry out research on a topic that they've chosen and isn't covered by their other qualifications. They can take inspiration from something touched on in class or something personal and unrelated to their studies. They then use this research to produce a written report and, in the case of practical projects, an artefact or a production.

By taking responsibility for the choice, design and decision making of an individual project (or an individual role in a group project) students

- become more critical, reflective and independent learners
- develop and apply decision-making and problem-solving skills
- increase their planning, research, analysis, synthesis, evaluation and presentation skills
- learn to apply technologies confidently
- demonstrate creativity, initiative and enterprise.

Mathematics in Context

Mathematics in Context (Edexcel)

We offer the Mathematics in Context course, designed if you're aged 16+ and have achieved an A* to C in GCSE Mathematics, but you've chosen not to continue your maths studies at A-level. This engaging and relevant qualification will improve your mathematical knowledge and show you how to apply it in real-world contexts.

It will prepare you for professional training or higher education courses, or equip you to apply for employment or higher apprenticeships in a wide range of industry sectors.

The Pearson Edexcel Level 3 Certificate in Mathematics in Context consists of two externally examined papers. The qualification is graded and certificated on a five-grade scale from A (the highest) to E (the lowest). Students must complete both papers in May/June in any single year

Paper 1: Comprehension (40% of the total qualification)

Overview of content

This paper will examine the following content areas:

- application of statistics
- probability
- linear programming
- sequences and growth.

Overview of assessment

- Written examination paper with two sections, A and B, and a source booklet.
- The source booklet will detail two real-life contexts. These contexts will be assessed in the written paper, which requires students to comprehend, interpret and analyse the content in order to answer the questions. One context will be assessed in Section A and the other context will be assessed in Section B. Students will need to

refer to the source booklet when answering the questions. The source booklet will be available for centres to download from the Exam Board's website (qualifications.pearson.com) no later than 15 April for the examinations in May/June of that year. A 'clean' copy will be provided in the examination. Students must not bring their copy into the examination.

- A calculator is allowed.
- Assessment duration is 1 hour and 40 minutes.
- The paper consists of 60 marks.
- A formulae sheet is given at the front of the source booklet.

Paper 2: Applications (60% of the total qualification)

Overview of content

This paper will examine the following content areas:

- application of statistics
- probability
- linear programming
- sequences and growth.

Overview of assessment

- Written examination paper with two sections, A and B, and a source booklet. The source booklet will detail one themed task in Section A – this will be the same as one of the contexts provided in Paper 1. Students will need to refer to the source booklet when answering the question. Section B will contain three tasks, each of which has a separate theme. The four themes will be assessed in the written paper, which requires students to apply their problem-solving skills in order to answer the questions. A calculator is allowed.
- The assessment duration is 1 hour and 40 minutes.
- A calculator is allowed.
- The paper consists of 80 marks.
- A formulae sheet is given at the front of the source booklet



A Level Subjects

Art and Design

A-level Art and Design (Fine Art) (Edexcel)

About the Course

Fine Art A-level will enable you to develop exciting and innovative visual responses to the observed world. You will be taught to develop essential skills that will help you to challenge your own perceptions. You will also investigate different cultures, art history and other influences to inspire your work and to develop your understanding of how to generate meaning with art. This course will enable you to develop varied ideas using unexpected approaches.

What you will study

In this course, drawing from observation forms the basis of the fine art development process, from visual research to final outcomes. You will be encouraged to experiment with the possibilities of traditional and non-traditional media in 2D and 3D. You will learn many new and challenging approaches to drawing and painting from observed subjects and your sketchbooks will be filled with sustained and self-focused explorations as you explore the formal elements of line, tone, colour, composition, shape and texture. Contextual understanding is vital and is developed through the individual and class study of art history though museums trips, contemporary art shows, architecture, literature and music. You will also investigate nature and the man-made world through self-devised visual research.

The skills you will learn in the first year provide a starting point for your second year. These skills will enable you, with guidance, to pursue your own individual creative and visual ideas. You will choose your own starting points for the practical portfolio, and by analysing and refining your work, you will work to produce ambitious, challenging and thoughtful responses.

In addition to your practical portfolio work you will also complete a written and illustrated related study of between 1000 - 3000 words.

which is presented as an art portfolio and practical outcome(s). There are also marks allocated to a written Related Study (20% of the coursework grade). In addition to the coursework there is an externally set practical which is worth 40% of the overall A-level mark. Projects are marked by the teachers and externally moderated by the examination board.

What skills you will need for the course

You will need to have good drawing skills, a genuine interest in art and a real love for experimenting with new ways of working. We also want you to really enjoy looking at the work of other artists and questioning why they made their work in a particular way. Good written analytical skills are an advantage.

Looking ahead after the course

Students who study this course go on to a range of different art and design degree courses and Art Foundation. Fine Art A-level will build your confidence and open up many different creative pathways for you to explore.

Many of our students progress directly to degree courses in a wide range of subjects including Jewellery Design, Architecture, Art History, Interior Design, Graphic Design, and Computer Game Design as well as Fine Art degrees. Applications to London art schools for Art Foundation courses are also popular.



Biology

A-level Biology (AQA)

About the course

Biology is the study of life and will give you the skills to make connections and associations with all living things around you. If you choose to study A-level biology you will also gain an understanding of how society makes decisions about scientific issues, as well ways in which the scientific community contributes to the success of the economy and society.

What you will study

Year 12 content: Biological molecules, cells, organisms exchange substances with their environment, genetic information, variation and relationships between organisms

Year 13 content: Energy transfers in and between organisms, organisms respond to changes in their internal and external environment, genetics, populations, evolution and ecosystems, the control of gene expression

There are also 12 required practicals including microscopy, microbiology and dissection.

Paper 1

What's assessed

Any content from topics 1–4, including relevant practical skills

- Assessed written exam: 2 hours
- 91 marks
- 35% of A-level

Questions

- 76 marks: a mixture of short and long answer questions
- 15 marks: extended response questions

Paper 2

What's assessed

Any content from topics 5–8, including relevant practical skills

- Assessed written exam: 2 hours
- 91 marks
- 35% of A-level

Questions

- 76 marks: a mixture of short and long answer questions
- 15 marks: comprehension question

Paper 3

What's assessed

Any content from topics 1–8, including relevant practical skills

- Assessed written exam: 2 hours
- 78 marks
- 30% of A-level

Questions

- 38 marks: structured questions, including practical techniques
- 15 marks: critical analysis of given experimental data
- 25 marks: one essay from a choice of two titles

Business Studies

A-level Business Studies (AQA)

What will I be studying on the course?

The course is essentially concerned with the management of businesses in all its aspects. The central theme is the decision making process common to all areas of business activity. You will soon become aware that business activity is an integrated process and that decisions made in one area always have an impact on other areas. There is a strong element of numerical work in developing your understanding of the quantitative methods which businesses use to research and measure future objectives and actual performance.

Year 1

- What is a business?
- Managers, leadership and decision making
- Decision making to improve marketing, operational, financial and human resource performance

Year 2

- Analysing the strategic position of a business
- Choosing strategic direction
- Strategic methods: how to pursue strategies
- Managing strategic change

What will I be doing in lessons?

Business activity is diverse and so is what happens in lessons. You will be involved at various times in discussion of current and topical business issues, group decision making and research exercises, role-play and presentations to the class, individual problem solving and the study of business techniques.

This subject will help you develop a variety of skills including problem solving, decision making, managing your own learning, using numerical techniques with confidence, effective communication, working with others, judgment and evaluation.

How will the course be assessed?

This is a new-style linear A-level course. In the second year of the course, you will take three external exams that assess content covered in the first and second year. These exams will determine your A-level grade. Please note that there is no coursework element in this course; the assessment is entirely exam based.

Which other courses go well with Business Studies?

It could be argued that business is of value whichever subjects you are doing since everyone will encounter the commercial aspects of their job at some point in their career. For those keen to pursue a career in business, accounting, languages and mathematics are popular choices, but in recent years students have combined business with most other subjects on offer at the College.

FAQs about Business Studies

Q: What is the difference between economics and business? A: Economics attempts to explain how the actions and decisions of firms, individuals and governments affect the economy. It has links to international affairs and politics, and includes topics such as supply and demand, growth, inflation, globalisation and exchange rates. Business is concerned with the actions and decisions taken by firms and focuses on topics such as marketing, staff in the organisation, accounting and finance, production and quality, management and strategy. Business is less theoretical than economics but requires more problem solving skills.

Q: Do I need to have studied business at GCSE?

A: No you don't. Having studied the subject at GCSE is an advantage only in the first year of the course. Some of the content of the first year A-level programme is similar to what is covered on the GCSE course.

Q: Do I need to be good in maths to study business?

A: You need to be comfortable with numbers. Examples of Maths used in Business are: expressing a change as a percentage, calculating the breakeven point, calculating financial ratios and manipulating formulae (basic algebra).

Q: Are there overlaps between business, economics and accounting? A: The syllabus covers some economics, as it affects how businesses adapt to changes in their external environments. There is also some analysis of accounting data to assess businesses financial performance. The theory is taught in a lesser depth than on either the economics or accounting course.



Chemistry

A-level Chemistry (AQA)

About the course

A-level Chemistry attempts to answer the big question 'what is the world made of?' From investigating how one substance can be changed drastically into another, to researching a new wonder drug or vaccine to save millions of lives, the opportunities that chemistry provides are endless.

What you will study

The curriculum is organised into three main parts: organic, inorganic and physical chemistry. Knowledge builds from studying the fundamental content and skills in Year 12 to applying this to complex contexts and examples in Year 13.

There are also 12 required practicals, including organic and inorganic experiments.

Paper 1

What's assessed

- Relevant physical chemistry topics (sections 3.1.1 to 3.1.4, 3.1.6 to 3.1.8 and 3.1.10 to 3.1.12)
- Inorganic chemistry (section 3.2)
- Relevant practical skills

Assessment

- written exam: 2 hours
- 105 marks
- 35% of A-level

Questions

• 105 marks of short and long answer questions

Paper 2

What's assessed

- Relevant physical chemistry topics (sections 3.1.2 to 3.1.6 and 3.1.9)
- Organic chemistry (section 3.3)
- Relevant practical skills

Assessment

- Assessed written exam: 2 hours
- 105 marks
- 35% of A-level

Questions

• 105 marks of short and long answer questions

Paper 3

What's assessed

- Any content
- Any practical skills

Assessment

- Assessed written exam: 2 hours
- 90 marks
- 30% of A-level

Questions

- 40 marks of questions on practical techniques and data analysis
- 20 marks of questions testing across the specification
- 30 marks of multiple-choice questions

Computer Science

A-Level Computer Science (OCR)

About the Course

OCR A-level Computer Science is a practical subject where you can apply the academic principles learned in the classroom to real-world systems. It combines invention and excitement, looking at the natural world through a digital prism. The course highly values computational thinking, helping you to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence. These concepts will be the best preparation if you wish to study Computer Science at a higher level and will also provide a good grounding for other subject areas that require computational thinking and analytical skills.

Benefits of A-level Computer Science

- The qualifications will be focused on programming, will build on GCSE Computing, and emphasise the importance of computational thinking as a discipline.
- There will be an expanded maths focus, much of which will be embedded within the course.
- Computational thinking will be at the core of the new specifications.
- The A-level will consist of three components, two of which will be externally marked question papers making up 80% of the qualification. The remaining 20% will be the coursework project, which will have a greater emphasis on coding and programming, with a simple assessment model and marking criteria.

What you will learn

Computer Science:

- Allows students to apply academic principles learned in the classroom to real world systems in an exciting and engaging manner
- Gives students a clear progression into higher education (the course was designed after consultation with members of BCS, CAS and top universities)

The course includes the following topics:

Fundamentals of programming, data structure and algorithms Theory of computation Fundamentals of data representation Fundamentals of computer systems Fundamentals of computer organisation and architecture Consequences of uses of computing Fundamentals of communication and networking Fundamentals of databases Fundamentals of functional programming Systematic approach to problem solving

How you will be assessed

Assessments take place at the end of Year 13. There are 3 assessments:

- Computer systems 140 marks 2 hours and 30 minutes written
 paper
- Algorithms and programming 140 marks 2 hours and 30 minutes written paper
- Programming project 70 marks coursework

Top links to further your interest

To further your interest and gain a wider understanding, please see the below links:

- An interesting TED Talk "How technology will transform us": <u>https://www.youtube.com/watch?v=IfbOyw3CT6A&feature=emb_logo</u>
- BBC Christmas Lectures A wide range of lectures on how technology impacts every part of our lives: <u>https://www.bbc.co.uk/</u> programmes/b00pmbqq/episodes/guide
- Course Specification: <u>https://www.ocr.org.uk/Images/170844-</u> specification-accredited-alevel-gce-computer-science-h446.pdf



Drama

A-level Drama (AQA)

About the course

Studying Drama at A-level provides students with a raft of skills that will prepare them for further education and beyond. This qualification emphasises practical creativity alongside research and theoretical understanding. Students learn through experience, seeing theatre and making theatre for themselves. Students are introduced to a wide range of theatrical styles and contexts as they explore plays practically, devise and work on performances.

Students can choose to develop as a:

- performer
- director
- combination of these

Whichever option you choose, students will gain many invaluable skills, both theatrical and transferable, to expand their horizons. Trips to the theatre are compulsory and an integral part of the course, as they deepen students' awareness of the theatre as a site of production.

The course is split into three components:

- 1. Drama and Theatre (40% of the A-level) this is the only unit component assessed through a written exam. Students will study two texts and explore them from the viewpoint of a performer, director and designer. As well as analyse the work of live theatre makers. This unit is externally marked.
- 2. Creating Original Drama (30% of the A-level) this is a courseworkbased component in which students develop and perform their own original piece of theatre. Students complete evidence to support and document the process of creating devised drama. This unit is internally marked and externally moderated.
- 3. Making Theatre (30% of the A-level) the final component is

an exploration of three script extracts, with a final assessed performance of one extract. Students submit a short-written reflection. This unit is externally assessed by a visiting examiner.



Economics

A-level Economics (Edexcel)

About the Course

The aim of the course is to encourage those that are interested in Economics to:

- Develop an interest in and enthusiasm for the study of economics
- Appreciate the contribution of economics to the understanding of the wider economic and social environment
- Develop an understanding of a range of concepts and acquire an ability to use these concepts in a variety of different contexts
- Use a critical and thoughtful approach to the study of economics and develop the ability to think as an economist
- Develop skills, qualities and attitudes which will equip you for the challenges, opportunities and responsibilities of adult and working life

You do not need to have studied Economics at GCSE to take an A-level course in the subject. It is more important that you should have a lively and enquiring mind, an interest in the business and economic world including politics and current affairs, a desire to explore new ideas and an ability to communicate your ideas effectively.

What you will learn

Microeconomics

- Introduction to markets and market failure
- Business behaviour and the labour market

Macroeconomics

- The UK economy performance and policies
- A global perspective

How the course is structured

The Pearson Edexcel Level 3 Advanced GCE in Economics A is structured into four themes and consists of three externally examined papers. Students build knowledge and understanding of core economic models and concepts in Themes 1 and 2, and then build on this and apply their knowledge to more complex concepts and models in Themes 3 and 4. Students will need to apply their knowledge and understanding to both familiar and unfamiliar contexts in the assessments and demonstrate an awareness of current economic events and policies.

- Paper 1 (Microeconomics): Markets and business behaviour: 35% of the total qualification
- Paper 2 (Macroeconomics): The national and global economy: 35% of the total qualification
- Paper 3 (Microeconomics and Macroeconomics): 30% of the total qualification

What skills you will develop by studying the course

This course will enable you to develop some key skills, which will be essential to you whatever you go on to do afterwards.

- Analysis and Evaluation
- Interpretation of Data
- Team working
- Independent Learning

Progression

Students can progress from this qualification to:

- Higher education courses such as economics degrees with a focus on theory, or degrees in applied economics such as environmental economics, labour economics, public sector economics or monetary economics. Alternatively, students may choose to study a business economics, mathematical economics, or business degree
- A wide range of careers ranging from finance, banking, insurance, accountancy, management, and consultancy, to becoming professional economists

English Literature

A-level English Literature (OCR)

About the course

The aim of studying English Literature is to appreciate and enjoy the different ways in which literature explores character, ideas and the experience of life. This involves honing a number of skills which are profoundly important in later life, including analytical understanding of language, the ability to explore a range of interpretations and the skill of writing in a formal, fluent and structured manner. There are many university courses and careers for which the study of English Literature is acknowledged to be valuable.

Unlike at GCSE, texts are mostly read outside the classroom and analysed and explored within. Students are expected to read independently and to take an active interest in the texts studied and in their own progress. A range of learning methods are employed, with group discussion, drama, ICT, presenting and extended writing all regularly used in the classroom. All assessment is ultimately by essay and long written response.

Content of the course

Component 1 (40% of A-level): Drama and poetry (pre-1900)

- Section 1: Shakespeare. Two questions: one close analysis of the extract (15 marks); one question linking issues in the extract to the wider play (15 marks). Total: 30 marks.
- Section 2: Drama and poetry. One non text-specific, literary question from a choice of six comparing one drama and one poetry text (30 marks).

Assessment of this component will take place in the form of a single, closed-text examination lasting 2 hours and 30 minutes.

Component 2 (40% of A-level): Comparative and contextual study of set topics (including: American literature 1880–1940; The Gothic; Dystopia; Women in literature; and The Immigrant Experience)

- Task 1: A critical appreciation of a passage related to discussion of the set topic (30 marks)
- Task 2: A comparative question (at least two texts) on the set topic (30 marks) Assessment of this component will take place in the form of: a single, closed-text examination lasting 2 hours and 30 minutes.

Component 3 (20% of A-level): Coursework on three literary texts (one prose, one drama, one poetry), all post-1900

- At least one text must be post-2000 and one may be a significant text in translation
- Two assignments: (3,000 words in total):
 - Either a close reading (1,000 words) or re-creative writing task (400 words) with commentary on one text (600 words)
 - A comparative essay on two texts (2000 words) Assessment of this component will take place in the form of two extended coursework tasks. Students will be permitted teacher feedback on one draft but otherwise, they are expected to plan and research independently.



Geography

A-level Geography (EDEXCEL)

About the course

The Geography A-level syllabus provides an opportunity to dive both into the physical and human aspects of everyday Geography. The specification offers an issues-based approach to studying geography, enabling students to explore and evaluate contemporary geographical questions and issues such as the consequences of globalisation, responses to hazards, water insecurity and climate change. By the end of the course, students will be able to analyse topics in detail, interpret the environment around them and be able to draw accurate conclusions in relation to their surroundings.

The subject is split into 4 components:

Component 1: Physical geography

What are the topics and what is assessed?

- Tectonic Processes and Hazards
- Coastal Landscapes and Change
- The Water Cycle and Water Insecurity
- The Carbon Cycle and Energy Security

How it's assessed

- Written exam: 2 hours 15 minutes
- 105 marks
- 30% of A-level

Component 2: Human geography

What are the topics and what is assessed?

- Globalisation
- Regenerating Places

- Superpowers
- Health, Human Rights and Intervention

How it's assessed

- Written exam: 2 hours 15 minutes
- 105 marks
- 30% of A-level

Component 3: Synoptic Investigation of a Contemporary Geographical Issue

What's assessed

• Students use all their knowledge and information to analyse a set of resources and make geographic decisions based on their data interpretation

How it's assessed

- Written Exam: 2 hours and 15 minutes
- 70 marks
- 20% of A-level

Component 4: Non-Examined Assessment (NEA) – An A-Level Independent Investigation

What's assessed

• Students complete an individual investigation (3000-4000) words which must include data collected in the field. The individual investigation must be based on a question or issue defined and developed by the student relating to any part of the specification content

How it's assessed

- Individual Student Project
- 70 marks
- 20% of A-level
- Marked by teachers and moderated by EDEXCEL



Government & Politics

A-level Government & Politics A-level (AQA)

About the course

Covering news and current affairs from the UK and US, Politics helps you to understand how the country is run and develops research, written communication, and debate skills. It's a great choice if you're considering studying politics, sociology, ethics, advertising, or journalism at university and is highly regarded by employers in industries including politics, international organisations, the media, government, and the civil service.

Component 1: Government & Politics of the United Kingdom

Students will study:

- The British Constitution
- The Structure and Role of Parliament
- The Prime Minister & Cabinet
- The Judiciary
- Devolution and Power Sharing

Component 2: Government & Politics of the USA

Students will study:

- Democracy & Participation
- Elections and referendums
- Political Parties
- Pressure Groups
- The European Union

Component 3: Political ideas

Students will study:

- The history and thinkers of core political ideologies of Liberalism, Conservatism and Socialism
- The history and thinkers of alternative ideologies such as Nationalism, Feminism, Anarchism

Assessment

Government & Politics is assessed using three examinations, each of 2 hours in length. The examinations are each worth one third of the final grade.



_History

A-level History (Edexcel)

About the course

Studying A-level History allows you to make connections between the world of today and the world of the past. When we analyse important historical events, we learn about the consequences of people's actions and we can apply this knowledge to our understanding of current affairs, learning valuable lessons for the future.

Component 1: Germany and West Germany, 1918-89

This option comprises a study in breadth, in which students will learn about key political changes experienced in a unified Germany and then in West Germany after the Second World War, and the impact of these changes on German economic, social and cultural developments.

Component 2: The rise and fall of fascism in Italy, c1911-46

This option comprises a study in depth of the turbulent years in Italy that saw the collapse of the liberal state, the creation of a fascist dictatorship and a return to democracy in the aftermath of the Second World War

Component 3: Protest, agitation and parliamentary reform in Britain, c1780–1928

Students will explore the relationship between authority and mass agitation in England, the struggle for greater representation in England, and the ways in which the interests and concerns of individuals in society could make themselves known.

Component 4: Coursework – African American Civil Rights

Students will complete a 4000-word research project, using sources to assess the influence of Martin Luther King Jr.

Assessment

History is assessed using three examinations, as well as an extended coursework essay. The coursework essay requires independent study and is worth 20% of the final grade.



Mathematics

A-level Mathematics and Further Mathematics (Edexcel)

About the course

This course further extends knowledge in Mathematics, builds on the skills, knowledge and understanding set out in the whole GCSE subject content for Mathematics. Assessments will be designed to reward students for demonstrating the ability to provide responses that draw together different areas of their knowledge, analytical skills and understanding from across the full course of study. Problem solving, proof and mathematical modelling will be assessed in both A-level and Further Mathematics. This course consists of three externally examined papers at the end of two-year course.

Why study A-level Mathematics and Further Mathematics?

The aims and objectives of this qualification are to enable students to:

- understand mathematics and mathematical processes in a way that • promotes confidence, fosters enjoyment and provides a strong foundation for progress to further study
- extend their range of mathematical skills and techniques
- understand coherence and progression in mathematics and how different areas of mathematics are connected
- apply mathematics in other fields of study and be aware of the relevance of mathematics to the world of work and to situations in society in general
- use their mathematical knowledge to make logical and reasoned decisions in solving problems both within pure mathematics and in a variety of contexts, and communicate the mathematical rationale for these decisions clearly
- reason logically and recognise incorrect reasoning .
- generalise mathematically
- construct mathematical proofs

- use their mathematical skills and techniques to solve challenging problems that require them to decide on the solution strategy
- recognise when mathematics can be used to analyse and solve a problem in context
- represent situations mathematically and understand the relationship between problems in context and mathematical models that may be applied to solve them
- draw diagrams and sketch graphs to help explore mathematical • situations and interpret solutions
- make deductions and inferences and draw conclusions by using mathematical reasoning
- interpret solutions and communicate their interpretation effectively in the context of the problem
- read and comprehend mathematical arguments, including • justifications of methods and formulae, and communicate their understanding
- read and comprehend articles concerning applications of mathematics and communicate their understanding
- use technology such as calculators and computers effectively and recognise when their use may be inappropriate
- take increasing responsibility for their own learning and the evaluation of their own mathematical developments.

A-level Mathematics Assessment Overview:

- Paper 1 and Paper 2 may contain guestions on any topics from the Pure Mathematics content.
- Students must answer all questions.
- Calculators can be used in the assessment.

Paper 1: Pure Mathematics 1, 9MA0/01; Paper 2: Pure Mathematics 2, 9MA0/02

Each paper is:

- 2-hour written examination
- 33.33% of the qualification
- 100 marks

Paper 3: Statistics and Mechanics, 9MA0/03

This part covers the applied element of the syllabus is split into two areas of Statistics and Mechanics to help students focus and apply their learning appropriately.

One paper is:

- 2-hour written examination
- 33.33% of the qualification
- 100 marks

A-level Further Mathematics Assessment Overview:

- All questions are compulsory.
- Calculators can be used in the assessment.

Paper 1: Core Pure Mathematics 1, 9FM01/01; Paper 2: Core Pure Mathematics 2, 9FM02/02 Each paper is:

- Written Examinations: 1 hour and 30 minutes
- 25% of the qualification
- 75 marks

Paper 3: Further Pure Mathematics Option 1

One paper is:

- written examination: 1 hour and 30 minutes
- 25% of the qualification
- 75 marks

Content overview

Students take one of the following four options:

A) Further Pure Mathematics 1, 9FM0/3A: Further Trigonometry, Further Calculus, Further differential, Coordinate systems, Further vectors, further numeric methods and inequalities.
B) Further Statistics 1, 9FM0/3B: discrete probability distributions, poisson binomial distributions, geometric and negative binomial distributions, hypothesis testing, central limit theorem, chi squared tests, probability generating functions and quality of tests.
C) Further Mechanics 1, 9FM0/3C: Momentum and impulse, work, energy and power, elastic strings and springs and elastic energy, elastic collisions in one dimension and elastic collisions in two dimensions.
D) Decision Mathematics 1, 9FM0/3D: Algorithm and graph theory, algorithm on graphs, algorithms on graphs 2, critical path analysis and linear programming

Paper 4: Further Pure Mathematics Option 2 One paper is:

- Written examination: 1 hour and 30 minutes
- 25% of the qualification
- 75 marks

Content overview

Students take one of the following seven options:

A) **Further Pure Mathematics 2, 9FM0/4A:** Groups, further calculus, further matrix algebra, further complex numbers, number theory, further sequences and series.

B) Further Statistics 1, 9FM0/3B: same as option 1

C) Further Mechanics 1, 9FM0/3C: same as option 1

D) Decision Mathematics 1, 9FM0/3D: same as option 1

E) **Further Statistics 2, 9FM0/4B:** Linear regressions, continuous probability distributions, correlation, combinations of random variables, estimation, confidence intervals and tests using a normal distribution, hypothesis tests and confidence intervals and confidence intervals and tests using the t – distribution.

F) **Further Mechanics 2, 9FMO/4C:** Motion in a circle, centres of mass of plane figures, further centre of mass, further dynamics and further kinematics.

G) **Decision Mathematics 2, 9FM0/4D:** transportation problem, allocation problems, flows in network, dynamic programming, game theory, recurrence relations and decision analysis.

Physics

A-level Physics (AQA)

About the course

Physicists explore the fundamental nature of almost everything we know of. They probe the furthest reaches of the earth to study the smallest pieces of matter. Physics explores everything!

What you will study

Year 12: measurements and errors, particles/radiation, waves, mechanics/materials, electricity

Year 13: further mechanics and thermal physics, fields & their consequences, nuclear physics, astrophysics

There are also 12 required practicals including electricity, waves and mechanics.

Paper 1

What's assessed

- Sections 1 to 5 and 6.1 (Periodic motion)
- Assessed written exam: 2 hours
- 85 marks
- 34% of A-level

Questions

• 60 marks of short and long answer questions and 25 multiple choice questions on content.

Paper 2

What's assessed

- Sections 6.2 (Thermal Physics), 7 and 8
- Assumed knowledge from sections 1 to 6.1
- Assessed written exam: 2 hours
- 85 marks
- 34% of A-level

Questions

• 60 marks of short and long answer questions and 25 multiple choice questions on content.

Paper 3

What's assessed

- Section A Compulsory section: Practical skills and data analysis
- Section B: Students enter for one of sections 9, 10, 11, 12 or 13
- Assessed written exam: 2 hours
- 80 marks
- 32% of A-level

Questions

- 45 marks of short and long answer questions on practical experiments and data analysis.
- 35 marks of short and long answer questions on optional topic.

Psychology

A-level Psychology (AQA)

About the course

Psychology is the scientific study of the mind and human behaviour. This means, as Psychologists, we try to understand what motivates, challenges or changes our behaviour. Psychologists study human behaviour by observing, measuring and testing, then arriving at conclusions that are rooted in sound scientific methodology.

Studying A-level Psychology allows you to gain a solid understanding of key concepts and theories within this subject. It will explore the fascinating human mind and expand your awareness of why we behave how we do. You will be able to bring your own knowledge and understanding of human behaviour into discussions and will learn to explain behaviours you may have already been aware of, by applying psychological theories and concepts.

Every day, psychologists are involved in:

- Helping people to overcome depression, stress, trauma and phobias.
- Speeding up recovery from traumatic brain injury through an increased understanding of brain functioning.
- Reducing bullying in schools and psychological abuse in the workplace.
- Helping the police, courts and prison service to perform more effectively.

A-level Psychology also helps you prepare for university study though the development of core skills that universities and employers alike desire. These include:

- Independent thinking
- Critical analysis
- Strong research skills

PAPER 1 Introductory Topics	PAPER 2 Psychology in Context	PAPER 3 Issues and Options
Social Influence	Approaches	Issues & Debates
Memory	Biopsychology	Gender
Attachment	Research Methods	Aggression
Psychopathology		Schizophrenia

The Topics above include:

- Social influence (how our behaviour changes in the presence of others),
- Memory (you will get to test yours and also find out about things that affect how accurate eye witnesses may be) and
- Attachment (how infants attach to their main caregiver and how this can influence you throughout your life).
- Psychopathology (all about what is normal or abnormal behaviour plus looking at 3 mental health issues depression, OCD and phobias) and
- Approaches in Psychology (the different ways we can explain and predict behaviour).
- Research Method's including different ways we can investigate behaviour such as doing experiments, interviews or observing people. You will get to carry out a number of your own investigations.

Students sit three papers. All papers are a combination of multi-choice, short answer and extended writing questions.

Within Psychology there is some biology content and some GCSE level mathematics. It is not essential to have taken GCSE psychology in order to take the A-level and most students will not have done so.

Great minds set free.



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