

SUBJECT GUIDE:

Exam Board - Edexcel
1 year - AS
2 year - A Level

WHY CHOOSE MATHEMATICS

An A Level in Mathematics is a valuable qualification that is always in demand in both the employment markets and universities. The ability to understand logical arguments and numerical information makes an A Level mathematician sought after. Career opportunities range from financial and economic planning through management services, to scientific and industrial research, engineering and computing.

HOW WE STUDY MATHEMATICS

Achievement in Post 16 Mathematics relies on hard work, motivation and commitment. Every lesson generates at least one hour of private study and students will complete set work relating to new topics. You are advised to make full use of Maths Workshops that are available throughout their one or two years of study.

ENTRY REQUIREMENTS

A Level Mathematics:
Grade 9 - 7 at GCSE is required, as is a Grade 6 in two other relevant subjects.

WHAT WE STUDY: AS

Paper 1: Pure Mathematics
Written examination: 2 hours
62.5% of the qualification, 100 marks.

Content overview

Proof, Algebra and functions, Coordinate geometry in the (x, y) plane; Sequences and series; Trigonometry; Exponentials and logarithms; Differentiation; Integration; Vectors.

Assessment overview

- Students must answer all questions.
- Calculators can be used in the assessment.

Paper 2: Statistics and Mechanics

Written examination: 1 hour 15 minutes
37.5% of the qualification, 60 marks

Content overview

Section A: Statistics: Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Statistical hypothesis testing.

Section B: Mechanics: Quantities and units in mechanics, Kinematics, Forces and Newton's laws.

Assessment overview

The assessment comprises two sections: Section A – Statistics and Section B – Mechanics.

Students must answer all questions. Calculators can be used in the assessment.

WHAT WE STUDY: A LEVEL

Paper 1: Pure Mathematics 1

Paper 2: Pure Mathematics 2

Each paper is:
2-hour written examination
33.33% of the qualification, 100 marks.

Content overview

Proof, Algebra and functions, Coordinate geometry in the (x, y) plane; Sequences and series; Trigonometry; Exponentials and logarithms; Differentiation; Integration; Numerical methods; Vectors.

Assessment overview

Paper 1 and Paper 2 may contain questions on any topics from the Pure Mathematics content.

- Students must answer all questions.
- Calculators can be used in the assessment.

Paper 3: Statistics and Mechanics 2-hour written examination

33.33% of the qualification, 100 marks.

Content overview

Section A: Statistics: Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Statistical hypothesis testing.

Section B: Mechanics: Quantities and units in mechanics, Kinematics, Forces and Newton's laws, Moments.

Paper 3 will contain questions on topics from the Statistics content in Section A and Mechanics content in Section B.

- Students must answer all questions.
- Calculators can be used in the assessment.

Grading in Mathematics

AS - grade A to E

A level - grades A* to E

PROGRESS PATHS

Mathematics is essential if you want to study for a Mathematics degree and is often necessary for Physics, Engineering or Computing. It can also provide useful support for studies in Biology, Chemistry, Finance, Business, Economics and Social Sciences.

An A and AS Level in Mathematics demonstrates that you have a level of numerical and problem solving skills which are well above average, making you particularly valued by employers and higher education establishments.

THE MATHEMATICS DEPARTMENT

Kandiah Vasanthakumaran – Head of Mathematics

Kandiah Joined the College in September 2000. Kandiah is qualified with BSc Hons. (Mathematics), MSc (Computational Mathematics with Modelling - Brunel), and PGCE (Post compulsory- UCL Institute of education) and has taught Mathematics in UK since 1996. Previous to joining Regent he worked for Ealing Green College and has worked for Edexcel as an examiner since 2003.

Ragulan Amirthalingam

Ragulan Joined the College in September 2001. Ragulan is qualified with B Eng Hons. (City) and also successfully completed the 'Preparing to teach in lifelong learning' course. He has taught Mathematics since 2000. He has been a GCE Mathematics examiner for Edexcel since 2005.

Amit Obhrai

Amit joined the college in September 2009. Amit is qualified with BSc Hons. (Mathematics – Brunel). He can teach KS2, KS3, GCSE and GCE AS & A2 mathematics.