

ADVANCED GCE MATHEMATICS

EXAMINING BOARD: AQA

Minimum Entry requirements:

GCSE Mathematics Grade 7-9 (Grade 6 will be considered after meeting with Curriculum Team Leader)

KEY FEATURES OF THE COURSE:

- Linear Assessment
- Studies of Pure Core Mathematics, Mechanics and Statistics
- Students will sit 2 exams at the end of Year 12 to assess work done and determine suitability for continuing on to Year 13.
- If students continue into Year 13, they will sit 3 exams at the end of the year and this will make up the full A Level.

CONTENT COVERED IN YEAR 12

Paper 1

A: Proof

B: Algebra and functions

C: Coordinate geometry

D: Sequences and series

E: Trigonometry

F: Exponentials and logarithms

G: Differentiation

H: Integration

J: Vectors

P: Quantities and units in mechanics

Q: Kinematics

R: Forces and Newton's laws

Paper 2

A: Proof

B: Algebra and functions

C: Coordinate geometry

D: Sequences and series

E: Trigonometry

F: Exponentials and logarithms

G: Differentiation

H: Integration

K: Statistical sampling

L: Data presentation and interpretation

M: Probability

N: Statistical distributions

O: Statistical hypothesis testing

CONTENT COVERED IN YEAR 13

Paper 1

A: Proof
B: Algebra and functions
C: Coordinate geometry
D: Sequences and series
E: Trigonometry
F: Exponentials and logarithms
G: Differentiation
H: Integration
I: Numerical Methods

Paper 2

Content as Paper 1 plus:
J: Vectors
P: Quantities and units in mechanics
Q: Kinematics
R: Forces and Newton's laws
S: Moments

Paper 3

Content as Paper 1 plus:
K: Statistical sampling
L: Data presentation and interpretation
M: Probability
N: Statistical distributions
O: Statistical hypothesis testing

The content in Year 13 will build on the content learned in Year 12 and expand it to wider applications.

TYPE OF ASSESSMENT IN YEAR 13

Paper 1 - 2 hours – 100% will be Pure Maths.

Paper 2 – 2 hours – 50% Pure Maths and 50% Mechanics

Paper 3 – 2 hours – 50% Pure Maths and 50% Statistics

Studying Mathematics will:

- Provide a stimulating and challenging course;
- Develop key employability skills such as problem-solving, logical reasoning, communication and resilience;
- Increase knowledge and understanding of mathematical techniques and their applications;
- Support the study of other A level subjects;
- Provide excellent preparation for a wide range of university courses;
- Lead to a versatile qualification that is well-respected by employers and higher education.