WHICH APPLIED MODULE SHOULD I CHOOSE?

Statistics is an ideal choice for students who are planning to study:

- Maths
- Psychology
- Sports Studies
- Biology
- Geography
- Business Studies

Mechanics is an ideal choice for students who are planning to study:

- Maths
- Physics
- Engineering
- Design
- Electronics

A2 MATHEMATICS

Success at AS level will enable students to take an A2 course in Mathematics in the second year of the sixth form.

This involves studying another 2 pure modules and an applied module. Students must continue with the area of applied Mathematics that they studied for the AS.

ASSESSMENT STRUCTURE

All modules carry equal weighting and all examinations are of 1 hour 30 minutes duration.

AS MATHEMATICS		A2 MATHEMATICS	
Module	**Month of Exam**	**Module**	**Month of Exam**
Core 1	January	Core 3	January
Core 2	June	Core 4	June
Applied 1	June	Applied 2	June

WHAT IS FURTHER MATHEMATICS?

Further Mathematics is an ideal choice for pupils who are considering studying maths, science or engineering at University.

It is designed for pupils with a flair for Mathematics and provides more of a challenge than A Level Mathematics.

Students study 6 pure modules, 3 statistics modules, 2 mechanics modules and a decision maths module.

Pupils who follow this course to A2 level will achieve **two A Levels** in Mathematics and Further Mathematics.

Most students achieve 2 Maths A Levels at grade A and go on to study at top Universities including Oxford and Cambridge.

The entry requirement for this course is grade A/A* at GCSE.

You must choose Further Mathematics in **both option boxes.**

ASSESSMENT STRUCTURE

MATHEMATICS (AS)		MATHEMATICS (A2)	
Module	**Month of Exam**	**Module**	**Month of Exam**
Core 1	January	Mechanics 2	January
Core 2	January	Decision 1	June
Core 3	June	Further Pure 1	January
Core 4	June	Further Pure 2	June
Mechanics 1	June	Statistics 2	January
Statistics 1	June	Statistics 3	June

All modules carry equal weighting and all examinations are of 1 hour 30 minutes duration.

MATHEMATICS

GAUDEAMUS

MALBANK SCHOOL AND SIXTH FORM COLLEGE

Edexcel Mathematics

In the first year of the sixth form, students will take an AS course, which comprises three modular units. The marks can be used to claim an AS qualification, or as 50% of an A level.

Success at AS level will enable students to take an A2 course in the second year of the sixth form. This comprises a further three modules which contribute the remaining 50% of the total A level marks. It is also possible for students to take AS level as a new course in the second year of the sixth form.

Courses are available in Pure Mathematics with Statistics and Pure Mathematics with Mechanics.

It is possible for students with a particular strength in Mathematics to study additional modules to gain a second A level in Further Mathematics. The Further Mathematics course will be in Pure and Applied Mathematics and will contain a variety of A level Statistics and Mechanics modules with additional Pure Mathematics.

Aims

The units are designed so that they encourage students to:

- Develop their understanding of mathematics in a way which promotes confidence and enjoyment;
- Develop abilities to reason logically and recognise incorrect reasoning, to generalise and to construct mathematical proofs;
- Extend their range of mathematical skills and techniques and use them in more difficult, unstructured problems;
- Develop an understanding of coherence and progression in mathematics and of how different areas of mathematics can be linked;
- Recognise how mathematics can be used to understand relationships in the real world;
- Communicate using mathematics;
- Understand mathematical arguments;
- Acquire the skills needed to use technology such as calculators and to recognise their limitations;
- See the relevance of mathematics in other fields of study.

AS Mathematics

The entry requirement for this course is grade B at GCSE.

Course Structure

For AS Mathematics students study 2 compulsory pure modules and 1 applied module.

The **pure modules** build on the following GCSE topics:

- Simplifying algebra
- Solving equations
- Graphs
- Sequences
- Trigonometry

And also introduce topics such as:

- Differentiation
- Integration

Pupils choose **either** statistics **or** mechanics for the applied module.

The **statistics** module builds on the following GCSE topics:

- Probability
- Drawing and interpreting statistical diagrams
- Measures of average and spread

And also introduces new topics such as:

- Probability distributions e.g. normal and binomial
- Regression

The **mechanics** module builds on the following GCSE topics:

- Vectors
- Speed-time graphs, velocity and acceleration

And also studies new topics such as:

- Newton's laws of motion
- Forces