MATHS

Exam Board: Welsh Joint Education Committee (WJEC)

Staff: 8 full time teachers, 4-part time teachers, 1 specialist STEP teacher, 1 support staff member. All teaching staff are qualified Mathematics teachers with many years of experience, including work as Heads of Department and examiners.

Summary: A two year A Level course, examined at the end of Year 13

What do I need to know before taking Further Maths at A Level?

You will need to get at least an A in Mathematics GCSE (or equivalent). Effective communication in English will also be required. You will require a Casio FX991EX Classwiz Advanced Scientific Calculator for this course.

What will I learn?

There is an emphasis in the specification on not just learning the abstract concepts in Mathematics, but including their application in real life situations.

Students will be able to:

• Develop the ability to reason logically

• Extend their range of mathematical skills and techniques and use them in more difficult, unstructured problems

• Recognise how a situation may be represented mathematically and understand the relationship between 'real world' problems and standard and other mathematical models

What kind of student is the course suitable for?

- Students who enjoy solving mathematical problems

- Students who are planning a career in any subject that requires logical thinking and problem solving skills

MATHS

Specification content: Year 1:

• Unit 1- Pure A (algebra, coordinate geometry, vectors, calculus, trigonometry, logarithms)

• Unit 2- Applied Maths A

Statistics: discrete distributions, statistical sampling and data presentation, probability. Mechanics: kinematics, forces, and Newton's Laws

Year 2:

• Unit 3- Pure B (calculus, trigonometry, algebra, numerical methods, functions, sequences and series)

• Unit 4- Applied Maths B

Statistics: hypothesis testing, continuous and discrete distributions Mechanics: kinematics, non-perpendicular forces, differential equations

What could I go on to do at the end of my course?

Mathematics provides students with the ability to think logically and solve problems, which are highly valued skills in the work place. Those who study Mathematics can go on to study a variety of university courses, including: Economics; Accountancy; Computer Science; Medicine, Dentistry, Pharmacy; Physics; Natural Sciences and Law.

BMA T and entrance test preparation

For those undertaking BMAT or other entrance tests, support and preparation classes are provided once a week during the Autumn term for the Maths and logic parts of these exams.

UKMT and Team Challenge

All students will have the opportunity to sit the Senior Maths Challenge. Those who do well will be invited to sit the Senior Kangaroo or the British Olympiad paper. These challenging and stimulating papers allow students to delve further into mathematics and logical thinking, as well as getting a chance to gain certificates and awards if they do well.