Course title: Mathematics (A-level) (Block E)

Academic year:	2024
Course Venues:	King Edward VI High School
Course Type:	A level
Course Code:	12EKeMa1
Duration:	2 years

Course Description:
A level Maths is split into two areas – Pure and Applied mathematics. Applied maths covers Statistics and Mechanics. A level Maths builds on the work done at GCSE and helps develop skills in mathematical thinking, understanding, modelling and problem solving.

Course Content:
Pure Maths covers ten topics:
1 – Proof
2 – Algebra and functions
3 – Coordinate geometry in the (x, y) plane
4 – Sequences and series
5 – Trigonometry
6 – Exponentials and logarithms
7 – Differentiation
8 – Integration
9 – Numerical methods
10 – Vectors

Applied Maths covers two areas – Statistics and Mechanics
Section A: Statistics
1 – Statistical sampling
2 – Data presentation and interpretation
3 – Probability
4 – Statistical distributions
5 – Statistical hypothesis testing
Section B: Mechanics
6 – Quantities and units in mechanics
7 – Kinematics
8 – Forces and Newton's laws
9 – Moments

Entry requirements: The standard entry criteria to study in the sixth form are a 9-4 in at least seven different subjects, including English and mathematics, which would usually be at grade 4 or above.

To study Maths at A-level, you will be required to achieve at least a grade 6 in Maths at GCSE and have sat the Higher tier GCSE Paper.

Assessment:
There are three exams at the end of the two years for A-level, two are Pure Maths Papers and these make up 67% of the marks, one is an Applied Maths paper, this is split into two sections: Statistics and Mechanics and together they make up 33% of the final mark.

Financial Information:
Students will be expected to buy a graphical calculator to support their work on the course. The specification and brand of the calculator will be recommended by the school and in the past the school has been able to pass on subsidies offered by Casio to the students

Future opportunities:
Mathematics is a versatile qualifications, well-respected by employers and is a "facilitating" subject for entry to higher education. Careers for people with good mathematics skills and qualifications are not only well paid, but they are also often interesting and rewarding. There is a huge demand from science, engineering and manufacturing employers for people with Mathematical qualifications. The reason why so many employers highly value mathematics qualifications is mathematics students become better at thinking logically and analytically. Through solving problems you develop resilience and are able to think creatively and strategically. The writing of structured solutions, proof and justification of results help you to formulate reasoned argument, and importantly you will have excellent numeracy skills and the ability to process and interpret data.

Further information: contact Ms J May Subject Leader, email: may.j@kevi.org.uk or Ms E Knights, Assistant Headteacher, email: knights.e@kevi.org.uk