Aldercar High School Post-16

Maths

Subject Information

A Level – Mathematics Content

The A Level Maths content is split into three main areas, Pure, Mechanics and Statistics, and are assessed as a single qualification at the end of year 13. A break down of the topics are as follows:

AS Pure Mathematics

- Topics include: Proof, Algebra & functions, Co-ordinate Geometry in the (x,y) plane, Sequences and Series, Trigonometry, Exponential and Logarithms, Differentiation, Integration and Vectors.

AS Mechanics

- Topics include: Quantities and Units in Mechanics, Kinematics, Forces and Newton's Laws.

AS Statistics

- Topics include: Statistical Sampling, Data presentation and interpretation,

- Probability, Statistical Distribution, Statistical Hypothesis Testing.

A2 Pure Mathematics-

- Topics include: Proof, Algebra & functions, Co-ordinate Geometry in the (x,y) plane, Sequences and Series, Trigonometry, Exponential and Logarithms, Differentiation, Integration, Vectors and Numeric Methods.

A2 Mechanics

- Topics include: Quantities and Units in Mechanics, Kinematics, Forces, Newton's Laws and Moments.

A2 Statistics

- Topics include: Statistical Sampling, Data presentation and interpretation, Probability, Statistical Distribution, Statistical Hypothesis Testing.

Assessment

The A-Level consists of three two hour papers. Paper 1 and 2 focusing on the pure components of the course and Paper 3 focusing on Statistics and Mechanics. Each paper counts for 33.33% of the final assessment. Papers will be sat in the June of Year 13. The topics in Year 13 will build on top of the topics covered in Year 12.

Subject Information

A Level Maths at Aldercar

Aldercar School offers Maths with very small classes where the specialist teachers will get to know each student and be able to support their learning throughout the two year course. This personalised approach to learning will help each student achieve their potential,

Entry Requirements

The minimum entry requirement for A Level Mathematics is a 6 in GCSE Mathematics. However, students with a 6 grade may find it difficult and need to take advantage of the extra help that is available outside lessons. Students should also have a feel for numbers, be confident with algebra and enjoy doing mathematics as the course will take several hours of their time each week! You will need to be able to preserve with complex problems and have the skill to link different areas of mathematics together.

Which subject complement Mathematics at A level?

Mathematics is a great partner for any of the sciences (particularly chemistry and physics) and also economics.

Careers in Mathematics

Mathematics is a 'facilitating subject' and therefore opens many doors in Higher Education and beyond. In particular, it is needed for Mathematics and related degrees e.g. Engineering, Sciences, Computing, Finance/Economics, etc. Mathematics is important for careers in finance and banking, natural and life sciences, operational research, mathematics and statistical research, engineering, insurance, information technology, education, medicine, defence and the military, space and astronomy, and intelligence services.

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