

Further Mathematics

Further Mathematics is highly recommended for degree courses in Maths, science and engineering. It is felt that students without further mathematics lack the required level of fluency. Some university departments require students without further maths to complete additional catch up courses.

Universities are so keen to take on students who have further mathematics that they often accept them with lower grades in other subjects.

Further Maths provides a greater level of challenge and inspiration than the standard Maths A level. We require a grade 7 in Mathematics GCSE and a thorough understanding of grade 7 and 8 topics.

Course Content

Pure (complex numbers, further calculus, roots of a quadratic, further matrices and vectors, hyperbolic functions, polar co-ordinates, differential equations)

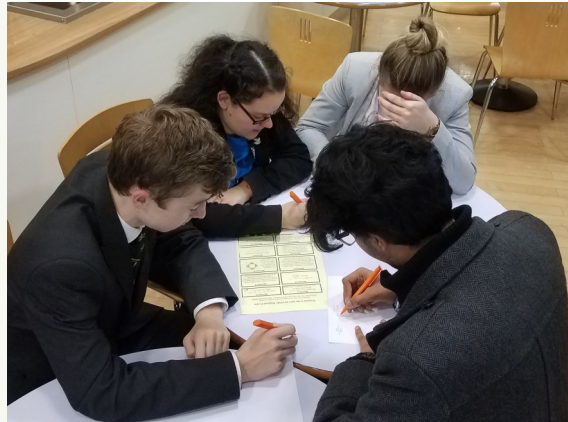
Statistics (Poisson distribution, exponential distribution, hypothesis testing, estimation, Chi squared contingency tables tests)

Mechanics (moments, centre of mass, momentum and impulse, further kinematics, circular motion, work and energy)

Extra Curricular Events

At Arden Mathematics is not just something that is done within the constraints of the classroom during lesson time but there are also many extra curricular events including lectures, seminars and challenges to be involved in. Recently these have included:

- Senior Mathematics Challenge
- Senior Team Challenge
- British Mathematics Olympiad
- Girls Mathematics Olympiad



For further information please contact:

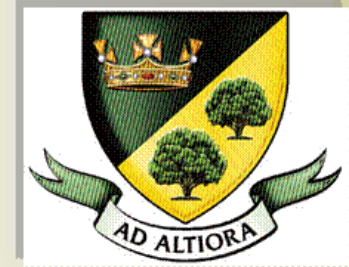
Arden Sixth Form

Mathematics Department

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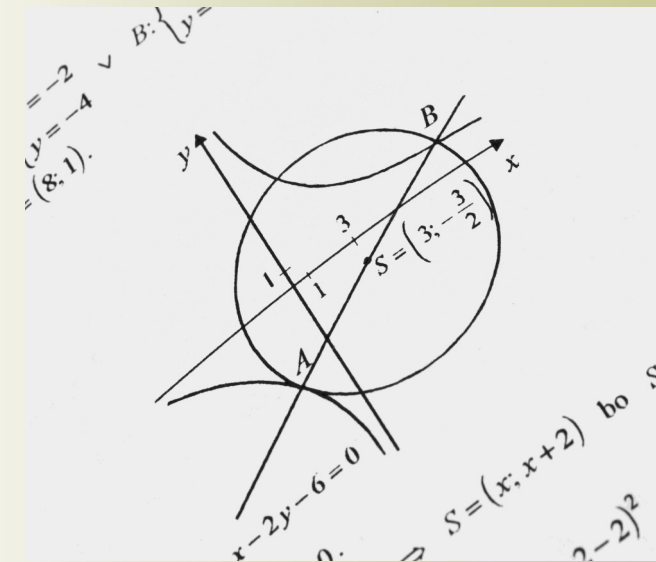
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Mathematics Department

A Level Mathematics
and
Further Mathematics



Why Study Maths A- Level?

A-level Maths makes you more employable-

A shortage of highly numerate candidates in the jobs market means employers pay a premium for the problem solving and number crunching skills of A level Mathematicians.

You open up many career paths -

Popular career choices for those with A-level Maths include Engineering, Computing, Accountancy, Economics, Banking, Business, Retail Management, Surveying, Air Traffic Control, Architecture, Psychology and Accounting.

It is necessary for many University courses -

University courses in Physics, Business Studies, Psychology, Computing, Engineering and, of course, Maths all stipulate A-level Mathematics as completely necessary.

You earn more money -

It has been reported that those with an A-level Maths qualification are set to earn around 10% more than those with other qualifications.

Maths is rewarding –

Not only in the financial sense but you also get a real buzz when you are able to solve complex problems—a great skill to have.

Why at Arden?

Fantastic results which speak for themselves!

(2017-2018)

A-Level Maths – 100% pass rate
– 85% of pupils achieved A* - C

A-Level Further Maths
– 100% pass rate
– 100% of pupils achieved A* - B



Help from Dedicated Professionals

Arden offers both A-level Mathematics and Further Mathematics Courses.

Both are taught by experienced and dedicated teachers with a real passion for the subject. There are currently 10 members of staff who teach Mathematics in the Sixth Form and so you will benefit from a variety of teaching methods and have access to people who can help you each and every day – not just during lesson time.

There are currently 112 students studying towards A level Maths and 16 students studying Further Maths.

Course Content:

A Level Mathematics - requiring grade 6 at GCSE (and confidence with algebra)

Pure

Proof, algebra and functions, co-ordinate geometry, differentiation, integration, arithmetic and geometric sequences)

Statistics

Probability, statistical measures, binomial distributions, normal distribution, hypothesis testing.

Mechanics

Forces, kinematics in one and two dimensions, mathematical modelling.

