

A Level Further Maths

A level Further Mathematics can only be studied alongside A level Mathematics.

A level Maths	Course Content
Years 1 & 2	<p><u>Core content</u></p> <ul style="list-style-type: none"> • Mathematical argument, language and proof • Mathematical problem solving • Mathematical modelling • Proof • Complex numbers • Matrices • Further Algebra and Functions • Further Calculus • Further Vectors • Polar coordinates • Hyperbolic functions • Differential equations • Trigonometry • Coordinate geometry <p><u>Applications</u></p> <p>Mechanics and Discrete Or Mechanics and Statistics Or Discrete and Statistics</p>
A level Maths	Assessment
Year 1	No external examination - Internal assessment only
Year 2	3 x 2hours exams equally weighted Paper 1 Further Pure 2hrs Paper 2 Further Pure 2hrs Paper 3 Applications 2hrs

Where are they now?

Rachel Gaskell.

Rachel studied A-levels in Physics and Economics alongside Maths and Further Maths. She also completed the extended project qualification as well as sitting the STEP I examination. Rachel is now studying Mathematics at Warwick University.

winstanley college

Where are they now?

Emily Nevinson.

Emily studied A-level Physics alongside Maths and Further Maths. She also represented Winstanley College in the UKMT Maths team challenge. Emily has gone on to study Mathematics at Manchester University.

Learning outside the classroom

Mentoring - individual weekly tutorials for AS students by A2 Maths students

Structured Revision Programme – with schedule, materials & online videos

Study Hall – quiet study sessions, at lunchtimes, with the HOD

MathsWatch – An online support programme with questions and videos.

Maths Study Room – available in all blocks for quiet independent study

Enrichment Activities & Competitions – Winstanley Premiership, UKMT team/individual challenges, LJM Pop Quiz, Making Maths at Manchester, and many more!

On line resources – materials for further independent study via DropBox.

Study Support

From the first lesson you will receive support in bridging the gap between GCSE algebra and the requirements for the AS level. General study support (organisation, time management) is available from individual tutors and also in the LRC in college.

Academic Challenge

If you are keen to continue with Maths at University you really should be taking Further Maths. Additional materials are available for self-study on mathematical topics that will be useful for your first term at university. Additional support for STEP and AEA is available during lunchtime classes run during the year. You will receive information about courses that you can attend, open day visits at universities, and also the opportunity to listen to visiting speakers talking about the many career options available to you after Maths A Level.

From school pupil to Winstanley student

The biggest challenge when starting AS level maths is the algebra. You may have an A or A* at GCSE without your algebra being thorough enough for the AS course. So, when you start at Winstanley you will receive an Induction booklet which will contain examples of all of the areas of GCSE algebra that you need to practise in order to be able to enjoy the new AS material. Should you find any areas that you cannot do there will be support from your teacher and videos on you tube to help fix this. Since 'Bridging The Gap' of algebra is so essential to your successful progression onto AS, additional opportunities to learn about this will be provided during the Taster days, Masterclasses and Bridging courses. The more practice you can get of advanced GCSE algebra the better! 😊