

A Level Mathematics	Course Content
Years 1 & 2	<ul style="list-style-type: none"> • Mathematical problem solving • Mathematical argument, language and proof • Proof • Algebra and Functions • Coordinate Geometry in the (x,y) plane • Sequences and series • Trigonometry • Exponentials and Logarithms • Differentiation • Integration • Numerical methods • Vectors • Statistical Sampling • Data presentation and Interpretation • Probability • Statistical Distributions • Statistical Hypothesis Testing • Quantities and Units in Mechanics • Kinematics • Forces and Newton's laws • Moments
A level Mathematics	Assessment
Year 1	No external examination - Internal assessment only.
Year 2	<p>3 external examinations, all equally weighted ($33\frac{1}{3}\%$)</p> <p>Paper 1: Pure Mathematics (2 hours) Paper 2: Pure Mathematics and Mechanics (2 hours) Paper 3: Pure Mathematics and Statistics (2 hours)</p>

Where are they now?

Bethan Critchley

Bethan studied A-levels in Maths, Biology, Chemistry and Physics. Bethan was part of the winning team in the Maths premiership and also took part in the UKMT individual challenge.

Bethan has gone on to study Biology with a year in Industry/Research at Imperial College London.

winstanley college

Where are they now?

Georgina Beckett

Georgina studied A-levels in ICT and Geography alongside Mathematics with Mechanics. Whilst studying A-level Maths Georgina enjoyed taking part in the UKMT individual challenge. Georgina is now studying Computer Science at the University of Salford.

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!

Online Resources – materials for further independent study via moodle.

Study Support

From the first lesson you will receive support in bridging the gap between GCSE algebra and the requirements for the A 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 mathematics at University you really should be taking A Level Further Mathematics. 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 classes run during the year. You will receive information about courses that you can attend, open day visits to universities, and also the opportunity to listen to visiting speakers talking about the many career options available to you after your A Level study.

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 A Level 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 A Level material. Should you find any areas that you cannot do, there will be support from your teacher and videos on youtube to help fix this. Since 'Bridging The Gap' of algebra is so essential to your successful progression onto A Level, 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! 😊