

A Level Statistics	Course Content
Years 1 & 2	<ul style="list-style-type: none"> • Numerical measures, graphs and diagrams • Probability • Population and samples • Introduction to probability distributions • Binomial distribution • Normal distribution • Correlation and linear regression • Introduction to hypothesis testing • Contingency tables • One and two sample non-parametric tests • Bayes' theorem • Probability distributions • Experimental design • Sampling, estimates and resampling • Hypothesis testing, significance testing, confidence intervals and power • Hypothesis testing for 1 and 2 samples • Paired tests • Exponential and Poisson distributions • Goodness of fit • Analysis of variance • Effect size
A level Mathematics	Assessment
Year 1	<p>This qualification is linear. Linear means that students will sit all their exams at the end of the course.</p>
Year 2	<p>How it's assessed</p> <p>Two Written exams: 2 x 3 hours, 2 x 120 marks, 2 x 50% of A-level</p> <p>Questions</p> <p>Questions requiring multiple choice, short, medium and extended answers including a Statistical Enquiry Cycle (SEC) question.</p>

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

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.

Why should I Study A-level Statistics at Winstanley College?

Statistics is an interesting subject on its own as well as giving excellent support to a wide variety of subjects and disciplines such as Psychology, Biology, Chemistry Economics, Geography, Business and Medicine.

The A-level Statistics course will allow you to develop an understanding of statistical theory and statistical processes. It will extend your range of knowledge, skills and techniques from GCSE Maths and teach you to construct logical statistical arguments and recognise incorrect statistical reasoning.

The course would suit those students who enjoy applying their numerate skills without the need to employ algebraic techniques until the A2 modules.

Careers and University

Statistics A-level is a highly regarded qualification and a good grade in this could assist you with most Higher Education applications. It may also be of benefit to any qualification involving Psychology, Geography, Business Studies and Biology.

It is also possible to go onto study Statistics further at degree level. With a degree in Statistics there are many possible routes including a career as an actuary, a forensic statistician, sports statistician, government statistician or statistical consultant.