

USE OF MATHS

AS Level

This subject will suit you if:

- You enjoy using Maths to solve real world problems.
- You are looking for a Maths course which supports your study in other subjects.
- You prefer a practical approach to Maths rather than a theoretical approach.
- You enjoy using computers to do Maths.



Subject Combinations

AS Use of Maths combines well with Science subjects, IT, Humanities, Social Sciences, Business Studies, Psychology, Economics, Health and Social Care, Leisure and Tourism.

Additional Entry Requirements

At least a grade C in GCSE Maths.



What You'll Study

- The course has three units, two of which have 50% coursework and all of which have an external exam at the end of the course.
- In “Working with Algebraic and Graphical Techniques” you will learn how to find mathematical models to describe real world situations and then use your models to make predictions about what will happen in the future. You will use graphic calculators and graph plotting software.
- In “Using and Applying Statistics” you will extend the statistical techniques you learnt in GCSE Maths and learn new techniques to analyse real life data. You will use spreadsheets to help with the calculations.
- In “Applying Mathematics” you will develop further your algebraic and graphical skills. You will study the use of simulations and recurrence relations in practical situations like queuing and population growth.



Jessica Drysdale



“I decided to study Use of Maths because it will help me progress to the career I would like in the future and opens up more options for me. I enjoy Maths in general, but this subject is easy to keep up with and the tutors offer a lot of support. Use of Maths also complements my other subjects which are Sociology and a BTEC Diploma in Medical Science. When I leave College I’m hoping to pursue a career in science.”



Studying AS Use of Maths develops your problem solving skills, teaches you how to use Mathematics to analyse a complicated situation and improves your ability to produce a logically reasoned report. These are all useful skills in real life and evidence of them will enhance any application for employment or Higher Education. In particular, any application to a degree course where the study of Maths beyond GCSE is desirable, would be strengthened if you have passed AS Use of Maths. (Use of Maths is only available at AS Level.)

Coursework

- You have to complete two coursework portfolios, one for “Working with Algebra and Graphs” and the other for “Applying Statistics”. Each portfolio contains three pieces of work and counts as 50% of that unit. Many of the calculations and diagrams will be done using spreadsheets and graph plotting software so that the finished product is well presented.
- For the “Working with Algebra and Graphs” portfolio, you are given three sets of data which relate to the profile of a Sea Wall, Planetary Motion and Tide Tables. From the graphs, you are able to tell what mathematical equation best fits the data. You then use algebra to find the equation and check your answer on the computer before testing how accurate your model is and looking for an even better one.
- For the “Applying Statistics” portfolio, you use Statistics to investigate differences between heights of people in two countries. You collect your own data to investigate the correlation between two different hand measurements. In the last piece, you have to analyse critically a report written by someone else by pointing out errors, suggesting and carrying out improvements.

