



WHY CHOOSE MATHS?

As well as being a subject for study in its own right, mathematics develops skills such as problem solving, analysis and logical argument. It also provides an underlying basis for disciplines as varied as the sciences, social sciences, engineering and finance.

HOW USEFUL WILL IT BE?

In addition to being an essential requirement for Mathematics and many science-based courses in Higher Education, mathematics is valuable in a wide range of professions including Engineering, Computing, Economics, Accountancy, Actuarial work, and is a favoured A Level for the undergraduate courses in subjects such as Psychology, Law and Business & Management Studies.

WHAT WILL YOU NEED TO DO TO BE SUCCESSFUL?

To study this subject you will need a minimum of five GCSE subjects at Grade A*-C. At this level you should enjoy mathematics, be good at mathematics and be prepared to work hard at mathematics (at least 5 hours a week per A Level, outside class). For the A Level Mathematics course you must have at least a B at GCSE. You need to have studied the material from module nine and preferably ten (grades A and A*).

WHAT WILL YOU STUDY ON THE COURSE?

Subject to demand, in Year 12 the Department offers:

a) AS Level Mathematics

This course is designed to be a natural progression from the GCSE programme. The course is modular in structure, consisting of 2 Pure Mathematics modules and 1 Statistics module. Assessment is through end of module examination.

b) A Level Mathematics

This course comprises the AS programme (see above) together with the A2 programme, so that the successful student can obtain an A Level after one year. This then permits study of the Further Mathematics course in Year 13. (See Further Maths page).

The course incorporates **two** AS option blocks in Year 12. This A Level course is modular in structure and contains Pure Mathematics, Statistics and Mechanics modules.

WHAT WILL YOU STUDY ON THE COURSE YEAR 12 – THE AS LEVEL?

Students will complete three modules at AS Level: Core Maths 1 (consolidating GCSE Higher Tier together with an introduction to the calculus); Core Maths 2 (which completes the first half of the Core Content of the A Level); and an applications module: Statistics 1 (which seeks to apply the student's mathematics to the real world). The statistics would be of special interest to those taking social science courses.

HOW IS THE AS LEVEL ASSESSED?

The first module, Core 1 is taken in January with two further modules taken in June – Core 2 and Statistics.

WHAT WILL YOU STUDY ON THE COURSE IN YEAR 13 – THE A2 LEVEL?

Students will complete another three modules at A2 Level: Core Maths 3 and Core Maths 4, which completes the pure programme of study, and a further applications module Mechanics 1.

HOW IS A2 LEVEL ASSESSED?

Students will be assessed in the remaining three modules. The Core 3 module will be taken in January 2007 and the Core 4 and Mechanics 1 module in June 2007. The Core 3 or Core 4 examinations contain a synoptic component, that is, aspects of the AS Pure Core will be assessed and must be taken in the second year of the course. All module papers last 1hr 30mins.

If you find you really enjoy Maths in year 12, it is possible to pick up an AS in Further Maths in Year 13.

HOW MUCH TIME WILL YOU HAVE TO SPEND ON PRIVATE STUDY/RESEARCH?

AS Level: at least 4 hours per week.

A2 Level: at least 5 hours per week.

