

# Mathematics



## Overview

Mathematics is a traditional and demanding subject, well-respected by employers and higher-education institutions. Maths provides a conceptual and theoretical framework for many subjects in the sciences and in design and engineering.

## Aims

- ▶ Develop ability and confidence in the application of mathematics
- ▶ Develop skills of modelling, generalisation and interpretation of results relevant to both the application and development of mathematics

## Grade Requirement

You should have 5 GCSE's grades A\*-C, including English Language. Please note that, due to the difficulty of A-Level Mathematics, the College will only accept applicants with 'B' grades in GCSE Mathematics on the **higher** tier.

## Complementary Subjects

Popular and useful combinations include Biology, Chemistry, Physics, IT, Geography, Business Studies, Economics and, of course, Further Mathematics.

## AS-Level

Core Maths 1

Core Maths 2

Mechanics M1

## A2-Level

Core Maths 3

Core Maths 4

Statistics S1

Candidates embarking on AS (Advanced Subsidiary) and A- (Advanced) Level study in Mathematics are expected to have achieved at least Grade A in GCSE Higher Tier Mathematics (or an equivalent qualification). This standard of knowledge and achievement is assumed of any student that applies to study Mathematics which precludes students who have studied GCSE Mathematics at Foundation Tier. The course is intellectually demanding and only students who have proven ability at GCSE level are likely to make the transition to A-Level study successfully. The College will run taster sessions for successful applicants to aid this transition but reserve the right to review students who are struggling at this early stage.

The majority of the students who apply to study A-Level Mathematics are expected to continue onto a higher-education degree course. A-Level Mathematics is an essential requirement for all Engineering, Accountancy and most Science and Business degree courses, as well as IT courses and Economics. Regardless of the course applied for, having a good A-Level in Mathematics shows undeniable ability in using logic and a rigour of advanced thinking as no other subject can. Those who want to do a vocational course or any training where Mathematics is required will be very well qualified to do so.

There is a national shortage of mathematicians and employment prospects are extremely good for students with A-Levels or higher in Mathematics. Recent results at Bacon's, in conjunction with the high number of students who go on to study maths-related degrees, reflect the success of the department in stretching and challenging the most able students. To get some idea of careers open to those studying Mathematics at A-Level and beyond, prospective students should take a look at the careers section at [www.plus.maths.org](http://www.plus.maths.org).

Students that also take Further Mathematics complete the Maths A-Level in Year 12 (FastTrack) and Further Maths A-Level in Year 13.

