

AS and A2 (full A-level) Maths, Pure Maths and Further Maths



INTRODUCTION

These A and AS Level courses are designed for those who wish to extend the mathematics they learnt at school and/ or progress to Higher Education in areas such as Science, Engineering, Computing, Accountancy, Economics, Finance and Mathematics.

WHAT WILL I DO

These are modular courses consisting of six modules. Students who are successful at completing the first three modules will be awarded an AS level qualification. When you successfully complete six modules you will be awarded the full A Level.

You will study three modules per year starting with two modules of Pure Maths plus one module of either Pure Maths or Statistics or Decision Maths with the same pattern repeated in Year 2.

It is also possible to achieve A/AS level Further Mathematics by studying a further six modules including three further modules of Pure Maths plus two modules of Mechanics and one module of statistics or decision Maths.

Assessment is by examination - one for each module. These take place in January and June. You are allowed to re-sit modules in order to improve your grade.

Pure Maths topics include:

Algebra, Functions, Co-ordinate geometry, Sequences and series, Trigonometry, Differentiation, Integration, Exponentials, Logarithms, Complex numbers, Vectors, Matrices and transformations

Mechanics topics include:

Vectors, Forces, Newton's laws of motion, Connected particles, Moments, Centres of mass, Projectiles, Kinematics, Circular motion, Work, energy and power.

Decision Maths topics include:

Algorithms, Graphs and Networks, Spanning Tree Problems, Shortest Paths in Network, Travelling Salesperson Problem, Linear Programming

Statistics topics include:

Confidence intervals, Probability, Probability distributions, Correlation and regression, Hypothesis testing

HOW LONG WILL IT TAKE

An AS qualification requires one year of study. A full A Level requires two years.

ENTRY QUALIFICATIONS

Full time A Level students require a minimum of 5 GCSEs at C or above. To study Maths as part of your course you should have an overall minimum B/C profile with a grade B in Maths.

WHERE COULD IT LEAD

A Mathematics qualification is a requirement for entry into many Higher Education courses: e.g. Computing,

Engineering, Physical Sciences, Accountancy, Economics, Business and Finance Mathematics. Mathematicians are regarded as very versatile people and so even if Maths is not specified as an entry requirement for an HE course it is often regarded favourably.

FEES

Full time Courses are free for those who are under 19 on 31 August of the year they start their course. For others, fees may vary depending on personal circumstances. Please enquire for details.

International and EU Students, please contact the International Office on +44 (0)1205 313212 or enquiry@boston.ac.uk for details on Fees.

ADDITIONAL COSTS

Examination fees: Approximately £40 per year, subject to circumstances.

ADDITIONAL INFORMATION

Where courses last for more than one year, only the first year's fees are shown.

HOW TO APPLY

You can apply for this course by applying [online](#), by filling out an application form from the College prospectus or by contacting the Information Officer on 01205 313218 for further information. The Information on this Course Information Sheet is correct at time of print, but can be subject to change at anytime.

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