Mathematics A Level
Further Mathematics A Level

Board: Board OCR, Specifications Mathematics B (MEI) H640 and Further Mathematics B (MEI) H645

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The course

Mathematics at advanced level is a demanding and stimulating course. Good study skills and consistent hard work are essential in order to be successful. It is a demanding course but the successful student will earn an impressive qualification that is highly regarded by universities and industry.

The maths faculty offers courses that work within the 'MEI Structured Mathematics' scheme. There are elements of pure mathematics, statistics and mechanics for A Level maths and, numerical methods, further statistics and further mechanics for Further Mathematics. Each element will be taught as topics by subject specialists.

You will be provided with full details of the content for each topic and a schedule that maps out how each element is taught and how the topics fit together. The pure topics build upon the algebra, geometry and trigonometry learned at GCSE level, whilst introducing and exploring new topics such as calculus and numerical methods.

All Statistics topics build upon the data handling and probability learned at GCSE level, whilst introducing and exploring new topics such as binomial distribution, hypothesis testing and discrete random variables. All Mechanics topics introduce and explore new areas such as forces, Newton's laws, modelling and projectiles.

Course content and assessment

For A Level, qualification is achieved by completing a 2 year course with 3 written exams of 2 hours. Your overall grade is determined by the aggregate score from all three papers you take. For Further Mathematics, qualification is achieved by completing further written papers in addition to the A Level.

We expect all students who take A Level maths to participate in the UKMT Senior Maths Challenge which is held each year in November.

Frequently asked questions

Which subjects go well with Mathematics A Level?

Most subjects do; it is a useful service subject particularly for the sciences and humanities, owing to its broad content.

What about post A Level?

Some higher education institutions expect maths A Level for acceptance onto certain degree courses; apart from mathematics these may include:

- Accountancy
- Agriculture
- Architecture
- Biology
- Biophysics
- Business Studies
- Chemistry
- Computer Science
- Economics
- Engineering
- Geology
- Physics
- Statistics
- Technology

NB: Many mathematics degree courses now prefer or insist on further mathematics being studied.

What about professions?

Mathematics is a useful vocational qualification too. Some careers specifically require A Level mathematics, including:

- Accountant
- Actuary
- Architect
- Armed Forces Engineering Officer
- Astronomer
- Engineer
- Finance
- Physicist
- STEM Teaching

Specific information regarding Further Mathematics

Is it difficult?

Yes. A recommendation of at least a GCSE grade 8 or higher is preferable. However, we will accept students achieving a grade 7.

Features of the course

- Teaching and support from experienced teachers.
- Self-study: ideal and vital preparation for all university courses.
- Support from a distance learning website. Resources include study plans, extra notes and examples, fully worked solutions and a variety of tests to help you and your tutor assess your progress.

Scheme of work

You will study further pure work that includes matrices and complex numbers; further statistics work that looks at regression and more complex hypothesis testing; further mechanics work that explores moments of forces and energy amongst others.

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