MATHEMATICAL STUDIES
(Enrichment Option)

AS LEVEL

Entry Requirements: Level 4 or 5 in GCSE Maths and with previous discussion with school
Exam board: AQA (Course code: 1350A)
Full Subject Specification: https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350

Why study Mathematical Studies:

Mathematics touches more aspects of modern living than ever before – communications, media, and financial management as well as the more traditional computer and physical sciences, engineering, technology and business related subjects. The list continues to grow! Mathematics has long been regarded as a "facilitating subject" giving future employers, universities or colleges clear evidence of highly valued numeracy and problem-solving skills irrespective of the actual role/course being considered.

Here at Stratford upon Avon School, we have staff who prior to becoming mathematics teachers have many years direct experience of the application of mathematics within a wide variety of industrial, commercial and public sector organisations – not as mathematicians but as engineers and management accountants and scientists. In some cases, this has also involved working overseas.

In 2013, the Department for Education announced plans for new mathematics qualifications for 16 to 18-year-olds. The Mathematical Studies qualification is designed for students who achieve a 9 - 5 in GCSE Mathematics, but who choose not to continue with AS or A level Mathematics. It supports student progression by:

- preparing them for the mathematics requirements of other level 3 qualifications such as A level Biology, Business Studies, Economics, Geography, Physics, Psychology, Product Design and BTEC Applied Science and IT.

- developing their understanding and ability to apply mathematics

- equipping them to apply for employment or higher apprenticeships in a wide range of industry sectors, professional training or university.

Mathematical Studies reflects the content of the new GCSE in Mathematics and is measured as a Level 3 qualification, accredited by Ofqual, is equivalent in size to an AS qualification and carries the corresponding number of UCAS points. However, it is distinct from AS Mathematics as learners consolidate mathematical techniques that can be directly applied to real-life contexts.

Subject Specification Outline:

This specification which leads to an AS level award, comprises two components one of which is compulsory whilst the second is selected from three options. Stratford School will be delivering the Statistics option as we believe that its content is the most supportive to other subjects being offered here at Stratford. Thus the content of this AS award comprises:-

- Analysis of data
- Maths for personal finance
- Estimation
- Critical analysis of given data and models
- The normal distribution
- Probabilities and estimation
- Correlation and regression

Much of the content is based on GCSE Maths, however there is also significant new material particularly within the statistics units.

Progress Assessment:

- Formal exam-style homework on a 3 weekly cycle
- Monitoring of supervised study work
- Ongoing ½ termly assessment
- Mock examinations at the end of term 2

Final Exam Format:

Two equally weighted written papers each lasting 90 minutes. Paper 1 covers the compulsory content whilst Paper 2 covers statistical techniques.

Self Study Requirements:

Each taught hour will require a minimum of additional two hours of self study (split between supervised study in school and homework). Teaching staff will give guidance as to material to be covered or completed and associated deadlines.

Progression Pathways:

This qualification is designed to support other numerate subjects requiring a competence in mathematics beyond standard GCSE level. As such, progression pathways are to be found by reference to these subjects within this document.