

MATHEMATICS – CORE (Level 3)

Examining Board:
AQA

Link Tutor:
Mr S Harris

Course Content:

Students study a 1 year course in Year 12 consisting of a Compulsory Unit and one of three Optional Units:

The Compulsory Unit consists of Analysis of Data, Maths for Personal Finance and understanding, making and justifying various methods of Estimating. This will be assessed by a single 90-minute paper.

The Optional Units consist of:

- Statistical Techniques: Critical Analysis of Data, Understanding and Using the Normal Distribution, Probabilities and Estimation and Understanding and Using Correlation and Regression.
- Critical Path and Risk Assessment: Critical Paths Analysis, Expectations based on Probabilities and Cost Benefit, including Risk Analysis.
- Graphical Techniques: Graphical Methods including plotting and interpreting graphs, Calculating and Interpreting Rates of Change and Using and Understanding Exponential Graphs.

Lesson style:

Lessons are to be delivered through a context which is analysed using both the students' existing knowledge before additional skills and techniques are introduced. These are then formalised and applied to other situations. The situations being discussed with arise from a variety of subject areas, making Core Mathematics a good fit for students not studying A Level Mathematics but taking subjects such as Geography, Psychology, Sociology and the Sciences.

Time Allocation:

3 hours per week

Private Study Requirement:

Homework/Private Study will normally be set following each taught lesson, of a similar duration to the lesson. Students will be given regular exam-style questions, which will be assessed to monitor progress.

Extra-Curricular Opportunities:

The Department is registered with the Wiltshire and Oxfordshire Further Maths Support Programme and the BBO Maths Hub along with the Core Maths Support Programme.

Advisable for following careers:

Study for Core Mathematics is an excellent qualification for any student planning to follow a career or make further study in the fields of Science, Engineering or similar areas.

Good Combination with:

Combined with the Extended Project Qualification and a Tech Level Qualification, Core Maths can form part of the new Technical Baccalaureate for Post 16 education

A LEVEL MATHEMATICS

Examining Board:
Edexcel

Link Tutor:
Mr S Harris

Course Content:

Students study either:

1 Year AS Level 3 Advanced GCE in Mathematics (8MA0) where all content is prescribed and consists of one Pure Mathematics paper and one Applied Mathematics paper covering Mechanics and Statistics

or

2 Year Level 3 Advanced GCE in Mathematics (9MA0) where again all content is prescribed and consists of two Pure Mathematics papers and one Applied Mathematics paper, again covering Mechanics and Statistics.

Lesson style:

Lessons are delivered using Edexcel-endorsed textbooks. Boardworks software is also used, many presentations including interactive demonstrations. A typical lesson would include teacher exposition, group discussion and time for students to work individually and collaboratively on problems.

Time Allocation:

4 hours per week

Private Study Requirement:

Homework/Private Study will normally be set following each taught lesson, of a similar duration to the lesson. Students will be given regular exam-style questions, which will be assessed to monitor progress.

Extra-Curricular Opportunities:

The Department is registered with the Wiltshire and Oxfordshire Further Maths Support Programme and the BBO Maths Hub. Students will have the opportunity to attend lectures, master classes and challenge events at venues including Oxford University.

Advisable for following careers:

Study for Mathematics is an essential requirement for any student planning to follow a career or make further study in the fields of Science, Engineering, Financial and other similar areas.

Good Combination with:

The inclusion of Mathematics AS will positively enhance any portfolio combination, but is particularly complementary to any student following Science, Engineering and Humanities options.