

SUBJECT: A Level Further Mathematics	YEAR: 12
HEAD OF DEPARTMENT: Mrs L Crowthers	
GROUPING POLICY: Years 12 and 13 are taught separately	
<p>COURSE CONTENT</p> <p>Students will follow the Edexcel Further Mathematics Specification. https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html</p> <p>The Further Mathematics course consists of the following areas:</p> <p>Core Pure Mathematics, Further Statistics and Decision Mathematics</p> <p><u>Core Pure Mathematics</u> has 9 topics</p> <p>Topic 1: Proof</p> <p>Topic 2: Complex numbers</p> <p>Topic 3: Matrices</p> <p>Topic 4: Further algebra and functions</p> <p>Topic 5: Further Calculus</p> <p>Topic 6: Further Vectors</p> <p>Topic 7: Polar Coordinates</p> <p>Topic 8: Hyperbolic Functions</p> <p>Topic 9: Differential Equations</p> <p>Topic 10: Vectors</p> <p><u>Further Statistics</u> has 8 topics</p> <p>Topic 1: Discrete probability distributions</p> <p>Topic 2: Poisson and Binomial distributions</p> <p>Topic 3: Geometric and negative binomial distributions</p> <p>Topic 4: Hypothesis Testing</p> <p>Topic 5: Central Limit Theorem</p> <p>Topic 6: Chi Squared Tests</p> <p>Topic 7: Probability generating functions</p> <p>Topic 8: Quality of Tests</p> <p><u>Decision Mathematics</u> has 5 topics</p> <p>Topic 1: Algorithms and graph theory</p> <p>Topic 2: Algorithms on graphs 1</p> <p>Topic 3: Algorithms on graphs 2</p> <p>Topic 4: Critical Path Analysis</p> <p>Topic 5: Linear Programming</p>	

What will homework look like?

Homework will be most frequently related to the assessment of the current unit of study. This may take the form of set learning tasks or questions from the provided text book, or questions from previous examination papers. It may take the form of a research task that helps to support the introduction of a new unit of study. Students will be encouraged to explore and evaluate different methods for revision to identify their preferred learning style.

ASSESSMENT

Students will sit written exams. Calculators can be used on each paper.

Examinations:

There will be 4 one hour and 30 minute exams at the end of Year 13:

- Paper 1 assesses content from Core Pure Mathematics
- Paper 2 assesses content from Core Pure Mathematics
- Paper 3 assesses content from Further Statistics
- Paper 4 assesses content from Decision Mathematics

ADDITIONAL INFORMATION

How can I support my child in this subject?

It is important that your child is doing work outside the classroom, and practising all the topics. If a student misses a lesson, they should make sure that they have caught up the work and practised the exercises before the next lesson.

How can I support my child with exams?

Students have access to a wide range of resources both electronic and also paper versions. Examination practice is essential to succeed at A level and students need to structure their revision so that they have time to practise their skills. In this subject students need to regularly work on past paper questions so any revision timetable must be well planned and adhered to. Independent study is very important but students should also be encouraged to seek help whenever necessary.