MATHEMATICS

at Ursuline High School

A LEVEL Mathematics

A LEVEL Further Mathematics (at Wimbledon College)

EXAMINATION BOARD: EDEXCEL

SPECIFICATION NUMBERS:
Pearson Edexcel Level 3 Advanced GCE in Mathematics (9MA0)
Pearson Edexcel Level 3 Advanced GCE in Further Mathematics (9FM0)

SEPTEMBER 2021

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**Deputy Headteacher and Assistant Headteacher Key Stage 5:
Mr Didier Adam & Mr Ben Barton**

WHAT WILL I STUDY IN THIS SUBJECT?

To complete the A Level in Maths you will complete:
Three compulsary modules covering Pure Mathematics, Statistics and Mechanics

- Proof
- Algebra and functions
- Coordinate geometry in the (x,y) plane
- Sequences and series
- Trigonometry
- Exponentials and logarithms
- Differentiation
- Integration
- Numerical methods
- Vectors
- Statistical sampling
- Data presentation and interpretation
- Probability
- Statistical distributions
- Statistical hypothesis testing
- Quantities and units in mechanics
- Kinematics
- Forces and Newton's laws
- Moments.

WHAT SKILLS AND INTERESTS DO I NEED FOR THIS SUBJECT?

- GCSE Mathematics
- Laws of Indices
- Algebra manipualation of quadratics
- Lienar and Simultaneous Equations
- Trigonometry
- Basic co-rdinate geometry including y = mx + c
- Problem solving
- Communication skills
- Curiosity and Resiliance

HOW WILL I BE ASSESSED?

A Level in Mathematics

Unit	Mode	Assessment	Weighting
Pure Mathematics 1	Exam	2 hours	33.33%
Pure Mathematics 2	Exam	2 hours	33.33%
Statistics and Mechnaics	Exam	2 hours	33.33%

A Level in Further Mathematics

Unit	Mode	Assessment	Weighting
Further Pure Mathematics 1	Exam	1 hour 30mins	25%
Further Pure Mathematics 2	Exam	1 hour 30mins	25%
Further Mathematics Option 1 One of the following: • Further Pure Mathematics 3 • Further Statistics 1 • Further Mechanics 1 • Decision Mathematics 1	Exam	1 hour 30mins	25%%

Further Mathematics Option 2
One of the following:
  • Further Pure Mathematics 4
  • Further Statistics 1 or 2
  • Further Mechanics 1 or 2
  • Decision Mathematics 1 or 2
	Exam	1 hour 30mins	25%%

WHAT OTHER SUBJECTS COMBINE WELL WITH THIS SUBJECT?

Physics	Chemistry	Biology	Businees Studies
Geography	Psychology	IT	Economics

TO WHAT FURTHER OR HIGHER EDUCATION COURSES COULD THIS SUBJECT LEAD?

Engineering
Mathematics and mathematical applications
Medicine
Computer Science
Telecommunications
Archaeology
Architecture

WHAT CAREERS COULD THIS SUBJECT LEAD TO?

Engineering	Statistician
Space Science	Surveying
Education	Banking / Finance
Accountancy	Medicine

RECOMMENDED READING:

- Why do buses come in threes?: The hidden Mathematics of everyday life
  Rob Eastaway and Jeremy Wyndham
- Fermat's Last Theorem:
  Simon Singh
- How to think about statistics:

John L.Phillips

USEFUL LINKS:

ENTRY CRITERIA:

Please refer to the Entry Criteria Insert to understand the Pathway requirements.

The entry criteria for this subject is:

Mathematics: 7 in GCSE Mathematics
Further Mathematics: 8 in GCSE Mathematics