

A LEVEL FURTHER MATHS

BOARD: EDEXCEL PEARSON

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This syllabus is intended for high ability candidates who have achieved, or are likely to achieve, a high grade in the A Level Mathematics examination. The A Level Further Mathematics syllabus enables students to extend the mathematical skills, knowledge and understanding developed in the A Level Mathematics course. The content of the syllabus covers the areas of Pure Mathematics, Mechanics and Statistics. Knowledge of the whole content of the A Level Mathematics syllabus is assumed.

Last year results (September 2018): A* - B: 100%

Any student who wishes to follow this course should have studied the Higher Tier GCSE (set 1 only) and obtained a strong grade 7 or above

YEAR 1 Further Mathematics Options

Paper 1:	
Further Core Mathematics 1	<i>Content overview</i> <i>Proof, Complex numbers, Matrices, Further algebra and functions, Further calculus, Further vectors</i>
Written examination: 1 hour and 30 minutes 50% of the qualification 75 marks	
Options 1:	<i>Content overview</i> <i>Algorithms and graph theory, Algorithms on graphs, Algorithms on graphs II, Critical path analysis, Linear programming</i>
Decision Mathematics	

YEAR 2 Further Mathematics Options

Paper 2:	
Further Core Mathematics (2nd part)	<i>Content overview</i> <i>Further Complex numbers, Further algebra and functions, Further calculus, Polar coordinates, Hyperbolic Functions</i>
Written examination: 1 hour and 30 minutes 25% of the qualification 75 marks	
Options 2:	<i>Content overview</i> <i>- Momentum and Impulse, Work and Energy, Elastic collisions in one dimension</i>
Further Mechanics 1	

Lead Teacher Key Stage 5: Mr H Fanyo (hfanyo@cardinalnewmanschool.net)

FURTHER MATHEMATICS

Average Prior KS4 Grade: A-

Average KS5 Grade: A

Cardinal Newman Catholic School A Specialist Science College | 2017/18 | A Level

A level grades and Total actual points

Students	A*	A	B	C	D	E	U	X	Q	A*->E%	A*->C%	A*->B%	Avg GCSE	Avg QCA
4	1	1	2	0	0	0	0	0	0	100.0%	100.0%	100.0%	7.09	52.53
Pts	×140	×120	×100	×80	×60	×40	×0	×0	×0	Total actual = 460				
Act pts	140	120	200	0	0	0	0	0	0					

$$\text{Subject VA score} = 1 + \frac{\text{Actual} - \text{Expected}}{\text{Students} \times 100} = \frac{460 - 445.17}{4 \times 100} + 1 = 1.04 \text{ grade 4}$$

2014/15			2015/16			2016/17			2017/18		
Students	Score	Grade	Students	Score	Grade	Students	Score	Grade	Students	Score	Grade
7	0.86	7	9	0.99	5	4	1.05	4	4	1.04	4

Department Results v National Results:

A LEVEL:

Grades	Cardinal Newman	UK
A*-A	50%	58%
A*-B	100%	78%
A*-E	100%	98%

AS LEVEL:

Grades	Cardinal Newman	UK
A	80%	57%
A-B	80%	74%
A-E	100%	95%

What other subjects go well with Further Maths?

Further Math needs to be studied alongside Mathematics and fits well with almost any combination of subjects, many of our students choose Computer Science as a third subject, but it also complements Physics or Economics very well. It offers wide progression opportunities to university or careers, but is best taken with courses with a high mathematical content.

What have past students gone on to do?

Maths students' progress onto a wide variety of degrees and careers. Last year 100% of students moved on to Higher Education.

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