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# A Level Further Mathematics



When studying A Level Further Mathematics you go deeper into the theory of Maths; learning the material in a more stretching and challenging way. Further Maths enables students to broaden their knowledge of Maths and also study Maths to a level similar to that studied at university, and as such, students go to university better prepared.



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# A Level Further Mathematics

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**Level** Level 3

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## Specific course entry requirements

College entry to include GCSE Mathematics minimum Grade 7.

A Level Further Mathematics and A Level Mathematics make up Double Mathematics and must be studied together (please refer to the Entry Requirements section of the SJR prospectus for further details).

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## What will I study?

In addition to the topics covered within the A Level Mathematics course, Further Mathematics students also study:

- + Imaginary numbers - How negative numbers can have square roots and what the consequences are. This is applied in complex calculus and is unexpectedly useful in Electrical Engineering
- + Maclaurin's Series - The Maths behind how values of sines, cosines and tangents are found
- + Polar Co-ordinates - How more complex functions can be graphed and their areas calculated
- + Second Order Differential Equations - The Maths behind the stability of static and dynamics structures such as bridges and aircraft

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## How will I be assessed?

100% Examination

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## Where will this course lead me?

Mathematics courses at university, but Further Mathematics is useful for other degrees such as Engineering, Sciences, Economics, IT and Computing.

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**We are very proud of the regional and national awards we have received and feel they showcase what makes our students successful.**



**Ofsted Outstanding**



**Matrix Award**



**Educate North**  
Most Inspirational  
Sixth Form Provider  
2017-18



**Educate Awards**  
Sixth Form College  
of the Year 2017-18



**Sixth Form College  
of the Year Finalist**  
TES FE Awards



**Archdiocese of  
Liverpool Head  
Teacher of the Year**  
2018-19

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