

The Further Mathematics Support Programme

Teaching Pure Mathematics for Further Mathematics A Level

Introducing and developing the mandatory pure content for A Level
Further Mathematics with a focus on the content for Year 2.

Offered as four bite sized courses.

Hosted at:

Launceston College: Wednesday 27th June: 3:00pm to 5:30pm

Exeter College: Wednesday 4th July: 3:00pm to 5:30pm

Plymouth University: Thursday 12th July: 10am-12:30pm & 1:30pm- 4pm



This is a set of Pure Mathematics courses, which will concentrate on the mandatory Pure Mathematics content of the Further Mathematics A Level, with a particular focus on the content from the second year of the A Level.

Each course is discrete, and is particularly suitable for teachers who have some experience of teaching the AS Further Mathematics content and who would like to develop their knowledge further.

Each course will look at introducing and developing the concepts, show how technology can be used to deepen understanding and provide some resources.

Course Outline:

Wednesday 27th June, 15:00-17:30:

Wednesday 4th July, 15:00-17:30:

Thursday 12th July, 10:00- 12:30:

Thursday 12th July, 13:30-16:00:

Complex numbers

Differential Equations

Hyperbolic functions & Calculus

Polar Co-ordinates & Series

Additional information

Teachers are welcome to attend all courses, but may alternatively choose to attend those courses most appropriate. For example; just the Complex numbers or alternatively any combination of two or three courses. The courses will be delivered by Heather Davis, Margaret Harding and Ben Sparks.

Each course aims:

- To provide teachers with an opportunity to develop key concepts in Pure Mathematics
- To give teachers the opportunity to use resources and work on problems
- To provide opportunities for incorporating technology into the teaching of the key concepts

More information about each of the courses: (exact detail for each session is subject to change slightly)

Complex numbers:

- De Moivre's theorem
- Exponential form
- Roots of complex numbers

Differential equations:

- Solutions of differential equations
- Integrating factor method
- Second order differential equations
- Applications and simultaneous equations

Hyperbolic functions and Calculus:

- Hyperbolic and inverse hyperbolic functions
- Inverse trig functions
- Integration

Polar co-ordinates and Series:

- Polar curves
- Area of sectors
- Maclaurin Series

Course dates:

Wednesday 27th June, 15:00-17:30: Complex numbers
Wednesday 4th July, 15:00-17:30: Differential Equations
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Thursday 12th July, 13:30-16:00: Polar Co-ordinates and Series

Course fees and application:

Fees for each course is £25, if you are attending all courses this will be reduced to £75

To apply, please complete the online form at: <https://goo.gl/forms/korfqoJqkBkuxCMi1>
by the closing date of **Friday 22nd June**.

Further information

For more information email: margaretharding@furthermaths.org.uk