

Further Mathematics Support Programme



www.furthermaths.org.uk

A professional development course for teachers: “An Introduction to Further Pure Mathematics 1”

Tuesday 21st June 2011

9.45am-3.30pm

Centre for Mathematical

OR

Monday 11th July 2011

9.45am-3.30pm

University of Essex, Colchester

Is this course for me? This course is suitable for teachers who have little or no experience of teaching topics from AS Further Pure Mathematics modules but have taught elements of AS Core Mathematics and/ or GCSE Higher. Teaching and learning resources will be explored so this course is also applicable to teachers who have taught the content of the module but may be looking for fresh ideas for use in the classroom. The content of the course is suitable for all exam specifications (MEI, Edexcel, AQA & OCR).

This one day course is planned with the following aims in mind:

- To strengthen teachers' understanding of some of the common topics in Further Pure 1 modules.
- To begin to explore classroom resources, including ICT, to illustrate concepts and to help improve students' understanding.

Course tutors: Chris Saker & Steve Wall (details overleaf)

Course Fee: £100*

Please note this fee is ***reduced to £50** for teachers from schools and colleges that are registered with the Further Mathematics Support Programme. Registration is free. To register please visit:

<http://www.furthermaths.org.uk/Eregister.php>

Cheques payable to 'University of Cambridge' and posted to Margaret Bull, Centre for Mathematical Sciences, Wilberforce Road, Cambridge CB3 0WA

9.45 Arrival and coffee

10.00 An **introduction to FP1**, background to AS Further Maths and a look at the content of FP1 across the four exam specifications and online resources available to support teachers and students

10.30 Series and Induction

- Use of standard summations
- Diagrams: $\text{Sum } r, \text{ sum } r^3 = (\text{sum } r)^2$
- Interesting sums, interesting series
- Proof by Induction

11.30 Refreshments

11.45 A detailed look at **Complex Numbers** with teaching ideas and suggestions for extension.


12.45 Lunch

13.45 A detailed look at **Matrices** with teaching ideas and suggestions for extension

14.45 Resources carousel

15.30 Depart

The programme is provisional and may be subject to minor change

The Further Mathematics Support Programme is managed by  and funded by the DfE

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Who are the tutors?

Chris Saker is an Area Coordinator for the Further Mathematics Support Programme and a lecturer in the Department of Mathematical Sciences at the University of Essex. His mathematical interests are mainly in the fields of combinatorics and he works on links to other areas such as Graph Theory. He has tutored AS and A level Further Mathematics students across the East of England and has worked with teachers to support them in offering a Further Mathematics qualification in their school.

Steve Wall has taught Mathematics for some 36 years in such exotic places as East Grinstead, The Bahamas, Scunthorpe and Suffolk. Whilst in Suffolk he was involved in various initiatives developing and supporting the teaching of mathematics across the county. He was Head of Mathematics at Stowupland High School and then Assistant Head responsible for the schools specialist status in Mathematics and Computing. Steve worked for the Further Mathematics Network as the Further Maths Centre Manager for Suffolk delivering support for both A level Mathematics and Further Mathematics. Steve continues to write the materials for the Eastern Area Year 10 Team Mathematics Challenge and the Year 12 Team Challenge from the distant shores of New Zealand.