

Live Online Professional Development in Mathematics

A range of courses to enable teachers to teach A level Mathematics and A level Further Mathematics with confidence.

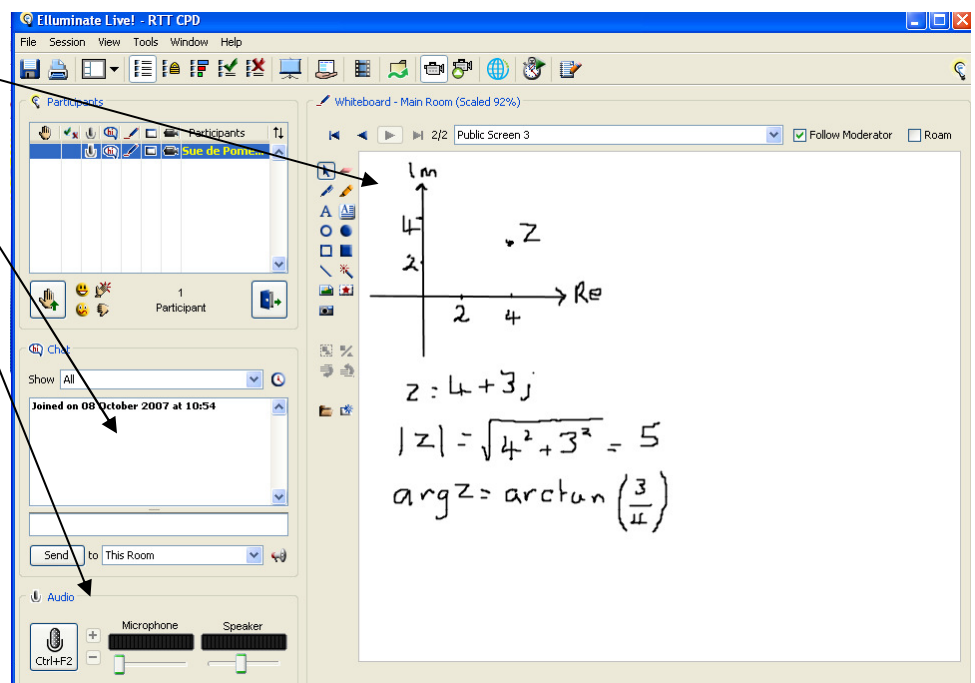
A modern approach to professional development; rather than attending a one or two day course, delegates meet weekly for live, interactive online sessions with a tutor and a small group of teachers.

These courses focus on developing subject knowledge and discussing approaches to teaching.

How does the live online tutoring work?

We use a web-based facility which is easy to use and allows a tutor and delegates to communicate live online using audio, handwriting on a shared virtual whiteboard and instant messaging via the internet.

- Shared whiteboard
- Instant messaging
- Audio conferencing
- Application sharing

This equipment is readily available to purchase on the high street or from online retailers for about £40

What you need to participate

- A broadband internet connection
- A recent version of Java (free to download)
- A headset for communication
- A graphics tablet and pen

Spring 2012: Topics from FP2 & FP3

Cost £175

Applications preferably before: **Friday 27th January 2012**

Course Structure

The course will consist of

- An introductory session to ensure that participants are familiar with the functionality of the online classroom and the Integral online resources.
- Nine 60 – 90 minute live online sessions led by a tutor
- An optional session to share resources

Date	Time	Content	MEI	OCR	AQA	Edexcel
Wed 8 th Feb	16.30-17.30	Introduction to the online classroom and the Integral online resources	MEI	OCR	AQA	Edexcel
Wed 29 th Feb	16.30 – 18.00	1. Polar coordinates, curve sketching, area of a sector, tangents.	FP2	FP2	FP3	FP2
Wed 7 th Mar	16.30 – 18.00	2. Maclaurin and Taylor series	FP2	FP2	FP3	FP2
Wed 14 th Mar	16.30 – 18.00	3. Applications and problem solving: use of Taylor series for solutions of Differential Equations. Use of series expansions to find limits.	DE	FP2	FP3	FP2
Wed 21 st Mar	16.30 – 18.00	4. Complex Numbers: Polar form, loci, exponent form, Euler's relation, De Moivre's Theorem,	FP2	FP3	FP2	FP2
Wed 28 th Mar	16.30 – 18.00	5. Complex Numbers: De Moivre's theorem: applications to trigonometric identities and summations	FP2	FP3	FP2	FP2
Wed 25 th Apr	16.30 – 18.00	6. Complex roots of unity. nth roots of a complex number; geometrical interpretations	FP2	FP3	FP2	FP2
Wed 2 nd May	16.30 – 18.00	7. Inverse trigonometric functions; derivatives and recognition of integrals. Use of trigonometric identities.	FP2	FP2	FP2	FP3
Wed 9 th May	16.30 – 18.00	8. Hyperbolic and inverse hyperbolic functions and their derivatives. Logarithmic forms.	FP2	FP2	FP2	FP3
Wed 16 th May	16.30 – 18.00	9. Hyperbolic and inverse hyperbolic functions; applications to integration, recognition of standard integrals. Use of reduction formulae for definite integrals.	FP2	FP2	FP2	FP3
Wed 23 rd May	16.30 – 18.00	<i>Optional Resource sharing session: This is an opportunity to share resources and ideas in preparation for teaching topics from the course.</i>				

Please note this schedule is provisional and may be subject to minor changes

All participants will receive

- Access to online resources for the modules being studied covering all exam specifications
- Access to an online forum which is for all teachers taking LOPD courses; this can be used to access ongoing support from other course delegates and LOPD tutors.
- Email support from a course tutor
- Certificate of attendance

For further information and an application form:

http://www.furthermaths.org.uk/teacher_area/rpd.php

Enquiries: LOPD@furthermaths.org.uk