

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.

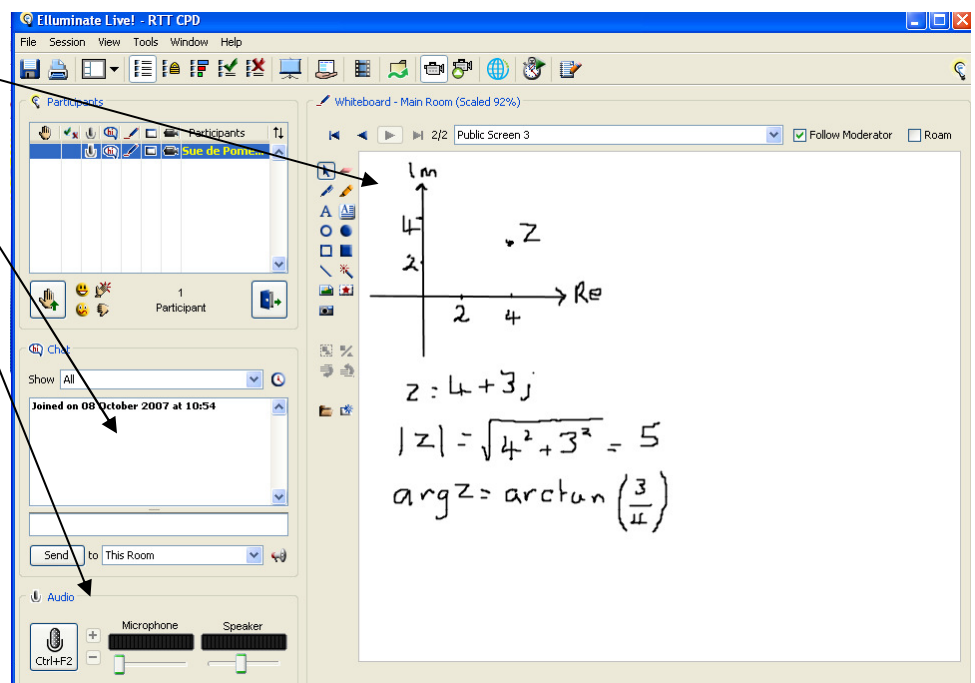
A modern approach to professional development; rather than attending a one or two day course, delegates meet weekly for live, interactive online sessions with a tutor and a small group of teachers.

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 & FP4

Cost £175

Deadline for applications: **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	TOPIC and relevant specification	MEI	OCR	AQA	Edexcel
Mon 6 th Feb	16.30-17.30	Introduction to the online classroom and the Integral online resources				
Mon 27 th Feb	16.30 – 18.00	1. Matrices: Determinant and inverse of a 3x3 matrix (reviewing results for 2x2 matrices). Singular and non-singular matrices.	FP2		FP4	FP3
Mon 5 th Mar	16.30 – 18.00	2. Matrices: Eigenvectors, eigenvalues, solving simultaneous equations and invariance	FP2		FP4	FP3
Mon 12 th Mar	16.30 – 18.00	3. First Order Differential equations	DE	FP3	FP3	FP2
Mon 19 th Mar	16.30 – 18.00	4. Second Order Differential equations	DE	FP3	FP3	FP2
Mon 26 th Mar	16.30 – 18.00	5. Substitutions to simplify DEs & Numerical methods (Euler's formula)	DE	FP3	FP3	FP2
Mon 23 rd Apr	16.30 – 18.00	6. Vectors: Vector product	FP3	FP3	FP4	FP3
Mon 30 th Apr	16.30 – 18.00	7. Vectors: Equations of lines and planes, scalar triple product	FP3	FP3	FP4	FP3
Mon 14 th May	16.30 – 18.00	8. Group Theory: Sets and operations. Cayley tables. Modular arithmetic. Symmetry. Group axioms	FP3	FP3		
Mon 21 th May	16.30 – 18.00	9. Group Theory: Properties of groups. Isomorphism. Cyclic groups, Subgroups. Lagrange's Theorem.	FP3	FP3		
Mon 11 th June	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>				

All participants will receive

- Access to on-line resources for the modules being studied covering all exam specifications
- Course delegates will also be issued with a username and password to access 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/teacher_area/rpd.php

Enquiries: LOPD@furthermaths.org.uk