

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.

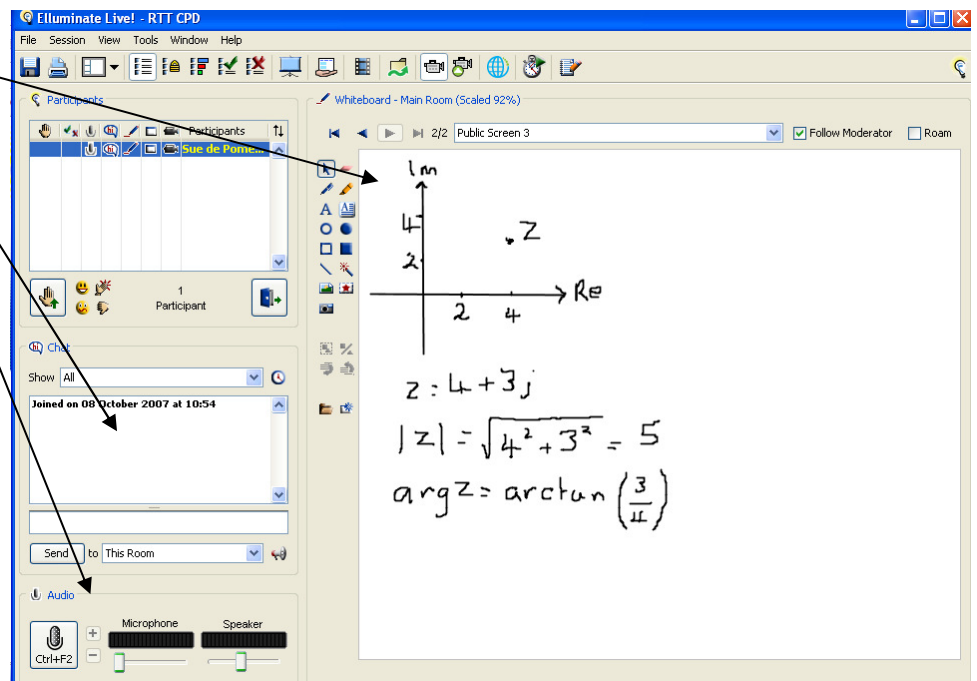
How does the live online tutoring work?

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



Headsets are readily available to purchase on the high street or from online retailers for about £5



The screenshot shows the Elluminate Live! interface. On the left, there is a 'Participants' list with one participant, 'Sue de Pomeroy'. Below that is a chat window showing a message: 'Joined on 08 October 2007 at 10:54'. At the bottom left, there are audio controls for 'Microphone' and 'Speaker'. The main area is a 'Whiteboard - Main Room' displaying a complex plane with a point Z at $(4, 3)$. The axes are labeled 'Re' (real) and 'Im' (imaginary). Handwritten mathematical work is visible on the whiteboard:

$$z = 4 + 3j$$

$$|z| = \sqrt{4^2 + 3^2} = 5$$

$$\arg z = \arctan\left(\frac{3}{4}\right)$$

What you need to participate

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

Summer 2012

Using Geogebra to enhance teaching & learning in A level Mathematics

Cost £85

Deadline for applications: **Friday 11th May 2012**

Course Content:

The course will focus on integrating the use of Geogebra into the teaching and learning of mathematics at A level:

- Teaching suggestions for AS Core, A2 Core, statistics and mechanics.
- Ideas for both teacher-centred and student-centred ICT.
- There will be an opportunity to focus on specific aspects of content at delegates' request in later sessions.

Course Tutor: Tom Button

DATE	TIME	TOPIC	PEDAGOGY	TECHNIQUES
Wed 23 rd May	16.30 – 17.00	<i>Introduction to the online classroom</i>	<i>This is an opportunity for teachers to familiarise themselves with the online classroom and check their connection</i>	
Wed 13 th June	16.30 – 17.30	AS Core: Coordinate geometry and algebra	Classroom display tools	Dynamic graphing, sliders, dynamic text
Wed 20 th June	16.30 – 17.30	AS Core: Differentiation/integration	Student-centred tasks	Geometry tools, Spreadsheet view
Wed 27 th June	16.30 – 17.30	Statistics and Mechanics	Using real data, selecting diagrams, representing mechanics	Importing data, plotting diagrams, probability, animating objects
Wed 4 th July	16.30 – 17.30	AS Core: Sequences and series, trigonometry	Linked objects, IWB use	Linking objects in different views, pen tool, advanced dynamic text
Thu 11 th July	16.30 – 17.30	A2 Core: Logarithms, exponentials, vectors	Advanced classroom display tools	Using functions, built-in functions, vectors

Delegates will be able to view and interact with a shared Geogebra screen in the online classroom during the sessions. Delegates who do not currently have a copy of Geogebra can download it at no cost from <http://www.geogebra.org>

Similar courses based on the same content are also available for Autograph and TI-Nspire.

Further information and an application form:

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

Enquiries: LOPD@furthermaths.org.uk

The Further Mathematics Support Programme is managed by

