

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.

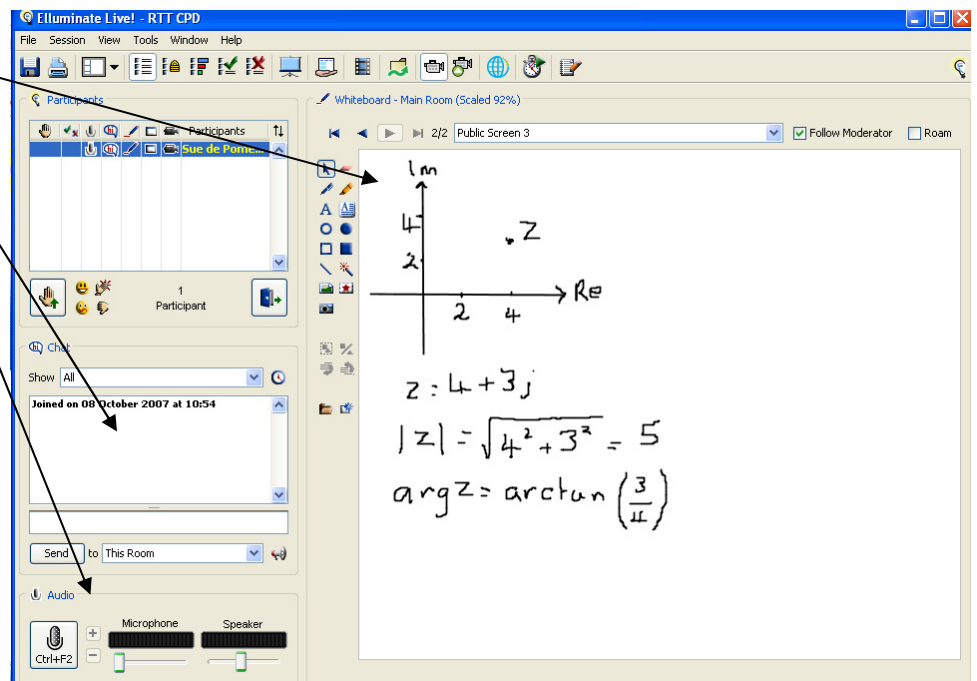
How does the live online tutoring work?

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 right, a whiteboard displays a complex plane with a point Z at (4, 3). The axes are labeled 'Re' (real) and 'Im' (imaginary). Below the diagram, the following calculations are shown:

$$z = 4 + 3j$$

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

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

On the left side of the interface, there is a 'Participants' list, a chat window, and an 'Audio' section with microphone and speaker controls. Arrows from the text on the left point to these features in the screenshot.

What you need to participate

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

Spring 2012
Using ICT to enhance teaching & learning in A level Mathematics

Cost £85

Applications preferably before **Friday 24th February 2012**

Course Content:

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

- Teaching suggestions for AS Core, A2 Core and applied modules.
- Ideas for both teacher-centred and student-centred ICT.
- A range of activities will be covered using spreadsheets, graph-plotters, dynamic geometry and websites. A variety of software will be used*.
- There will be an opportunity to focus on specific aspects of content at delegates' request in later sessions.

DATE	TIME	TOPIC
Thurs 8 th March	16.30 - 17.30	Introduction to the online facility
Thurs 15 th March	16.30 – 17.30	Use of ICT in AS Core: coordinate geometry, algebra
Thurs 22 nd March	16.30 – 17.30	Use of ICT in AS Core: differentiation/integration, sequences/series
Thurs 29 th March	16.30 – 17.30	Use of ICT in applied maths: statistics, mechanics, decision
Thurs 19 th April	16.30 – 17.30	Use of ICT in A2 Core: Logarithms/exponentials, trigonometry
Thurs 26 th April	16.30 – 17.30	Use of ICT in A2 Core: Further differentiation/integration, vectors

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

*The software used will include Autograph, Geogebra, Excel and TI-Nspire. Delegates do not need to have the relevant software already installed on their computer to access this online course. The applications will be shared using Blackboard Collaborate during the sessions. In addition free/trial versions of all the applications are available and how to gain access to these will be explained during the course.

Further information and an application form:

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

Enquiries: LOPD@furthermaths.org.uk