



# On-line, Live and Interactive Professional Development in Mathematics

## Mechanics 1 and Decision Maths 1

### Information for applicants

A modern approach to professional development. These courses will focus on subject knowledge and will cover common ground from all current specifications. Rather than attending a one or two day course away from school/college, delegates will use the software **Elluminate** to meet weekly on-line for ten one hour sessions with a tutor and a small group of teachers.

**The course content covers topics from the AQA, MEI, OCR and Edexcel specifications**

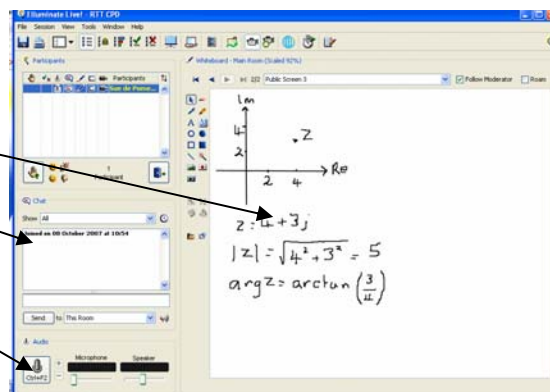
#### What is Elluminate?

Elluminate allows a tutor and delegates to communicate live on-line using audio, handwriting on a shared virtual whiteboard and instant messaging via the internet.

Elluminate is a well established web-based package which is easy to use and has features that make it ideal for live mathematics tutoring.

These features include:

- Shared whiteboard
- Instant messaging
- Audio conferencing
- Application sharing
- A graphical calculator



#### All participants need

- a broadband internet connection
- a recent version of Java installed on their computer.
- A graphics tablet and headset



#### All participants will receive

- Roughly ten hours of Elluminate tutorials
- A course handbook
- Online resources access for the module being studied.
- A textbook for the module being studied
- Email support from a course tutor

#### For Optional Certification of both courses

If participants wish to receive a certificate at the end of the course they will be required to submit a short portfolio consisting of

- An exam paper with annotated solutions
- A resource that can be used for teaching a topic from the module.



## Each course costs £100

**Monday 14<sup>th</sup> April:** Deadline for applications:

**11<sup>th</sup> July:** Deadline for submission of portfolio

### April 2008 – Mechanics 1

#### Course Structure

The course will consist of

- One session giving an introduction to Elluminate and the on-line resources
- Eight 60 - 90 minute sessions
- An optional surgery sessions

#### Dates

DATE	TIME	TOPIC	Tutor
Thursday 17 <sup>th</sup> April	17.00 – 18.30	Introductory session	Sue
Thursday 24 <sup>th</sup> April	17.00 – 18.30	Modelling in Mechanics and Kinematics Graphs	Sharon
Thursday 1 <sup>st</sup> May	17.00 – 18.30	Constant acceleration calculations (s.u.v.a.t)	Sue
Thursday 8 <sup>th</sup> May	17.00 – 18.30	Forces, gravity and Newton's laws: part 1	Sue
Thursday 15 <sup>th</sup> May	17.00 – 18.30	Friction and Momentum	Sharon
Thursday 22 <sup>nd</sup> May	17.00 – 18.30	Vectors	Sue
Thursday 5 <sup>th</sup> June	17.00 – 18.30	Forces and Newton's Laws: part 2	Sharon
Thursday 12 <sup>th</sup> June	17.00 – 18.30	Projectiles	Sue
Thursday 19 <sup>th</sup> June	17.00 – 18.30	Variable acceleration calculations (calculus)	Sharon
Thursday 26 <sup>th</sup> June	17.00 – 18.30	surgery	Sharon

### April 2008 – Decision Maths 1

#### Course Structure

The course will consist of

- One session giving an introduction to Elluminate and the on-line resources
- Eight 90 - 120 minute sessions
- An optional surgery sessions

#### Dates

DATE	TIME	TOPIC	Tutor
Wednesday 23 <sup>rd</sup> April	18.00 – 19.00	Introductory session	Sharon
Wednesday 30 <sup>th</sup> April	17.00 – 19.00	Graphs, networks: minimum spanning tree and shortest path	Sue
Wednesday 7 <sup>th</sup> May	17.00 – 19.00	Networks – RI, TSP and matchings	Sue
Wednesday 14 <sup>th</sup> May	17.00 – 19.00	CPA	Sharon
Wednesday 21 <sup>st</sup> May	17.00 – 19.00	Graphical linear programming and introduction to the simplex tableau	Sue
Wednesday 4 <sup>th</sup> June	17.00 – 19.00	algorithms	Sharon
Wednesday 15 <sup>th</sup> June	17.00 – 18.30	surgery	Sharon