Sheffield Hallam University
SHARPENS YOUR THINKING

GeoGebra Institute of Sheffield

GIS: http://research.shu.ac.uk/geogebra/index.html

Teaching with GeoGebra

Developing your technical skills to create learning resources

Delivered by: Mark Dabbs
From 9:30am **till** 16:30pm

Please contact m.f.dabbs@shu.ac.uk for more information.

COST: Course cost: Free to all participants. Food cost: £15

GeoGebra software

GeoGebra is free, open source mathematics software for teaching and learning. It has flexible, easy access so it can be used to quickly illustrate an impromptu idea or, more deliberately, to demonstrate a topic from a previously constructed and saved file. It also has a very intuitive and pupil-friendly interface which makes it ideal for pupil investigation work. GeoGebra has a world-wide and rapidly growing number of users, many of whom contribute their own files freely to an on-line, categorised database of materials (GeoGebra Tube).

Geogebra is not just about Euclidean Geometry. It also has a very powerful dynamic graph plotter; a spreadsheet containing a comprehensive set of statistical and probability functions; a computer algebra system; a JavaScript editor for creating programs for use within any aspect of GeoGebra (for advanced users), and much more…

Course dates

Beginners Level	Intermediate Level	Advanced Level
Saturday 27th October Saturday 16th February	Saturday 24th November Saturday 23th March	Saturday 25th May

Course descriptions

These one-day courses will focus on **developing your technical skills** in using GeoGebra to create resource files for the classroom. Exemplar material from Key Stages 3, 4 and 5 will illustrate what is possible. You will be supported in creating your own files which:

- Use GeoGebra to construct geometrical objects (and diagrams) and to illustrate their properties. Examples include: the circle theorems, transformations of shapes, etc.
- Use GeoGebra as a graph plotter. Examples include: sequences such as: $U_n = 3n+1$, functions such as $y = mx+c$, $y = ax^2+bx+c$, $y = 2\sin(x)$, with parameters varied dynamically in real-time.
- Use GeoGebra as a spreadsheet. Examples include: sequences dynamically linked to their plot, random data sets, averages, stem and leaf diagrams, box plots, scatter graphs and cumulative frequency graphs.
- Use GeoGebra's Sequence Function to illustrate many topics otherwise difficult to build constructions for or to visualise.

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