



Advanced Mathematics
Support Programme®

Continuing Professional
Development
Standard

National Centre
for Excellence in the
Teaching of Mathematics



Teaching Mechanics in the A Level Mathematics classroom

Plymouth

12th December 2018

Overview

A comprehensive look at modelling and developing Mechanics teaching for the Mathematics A level course; offered as bite sized courses.

Aims

- To provide teachers with an opportunity to develop key Mechanics concepts
- To enable teachers to see how practical ideas and modelling can be used in the introduction and teaching of Mechanics
- To give teachers the opportunity to use resources and work on problems in Mechanics

Who will benefit from attending?

This is a set of Mechanics courses which are ideal for all teachers who will be teaching the A level Mathematics course.

They are particularly suitable for teachers who are new to teaching Mechanics, or who would like some fresh ideas on the introduction and development of topics.

Content

Course outline:

Monday 15th October: Kinematics

Wednesday 7th November: Forces and equilibrium

Wednesday 21st November: Newton's laws and connected particles

Wednesday 12th December: Projectiles and moments

Each course will look at how to model situations, give some practical approaches to teaching and develop concepts in Mechanics for A level Mathematics.

Other Information

Teachers are welcome to attend all courses, but may alternatively choose to attend those courses most appropriate. For example; just the “Projectiles and moments” course or alternatively any combination of two or three courses. Dr Ted Graham will be delivering these courses.

More information about each of the courses:

Kinematics:

- Motion in 1 and 2 dimensions
- Kinematics graphs
- Constant and variable acceleration

Forces:

- Identification and representation of forces
- Application of vectors to forces

Newton’s laws and connected particles:

- Applying Newton’s laws to a particle
- Developing Newton’s laws to connected particles

Projectiles and moments:

- Motion under gravity in two dimensions
- Rigid bodies in equilibrium

Timetable for each course: (there will be flexibility in the timings during the course)

16:00 Registration and refreshments

16:15 Modelling and practical approaches

17:15 Refreshments

17:30 Resources, ideas, discussion

18:30 Plenary and feedback

Key Facts

Event ref:	#4895
Audience:	Teachers
Curriculum focus:	A level Mathematics
Mathematical focus:	Mechanics
Event format:	Face-to-face Professional Development
Event length:	3 hours
Region:	South West
Venue:	Plymouth University, Babbage Building, Drake Circus, Plymouth, Devon, PL4 8AA
Date:	Wed 12th Dec 2018
Course times:	16:00 - 19:00
Fee:	£25

Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/4895>