

The Further Mathematics Support Programme

# Introduction to Mechanics for beginners 2017

A one day beginners' course for teachers who are new to teaching mechanics.

University of Essex

Tuesday 5<sup>th</sup> December 2017, 09.30 – 16.00



**This course is for teachers who have not previously taught mechanics. It will cover the key topics of motion and force which underpin the mechanics content in the new Maths AS/A Level.**

## Prior knowledge

Knowledge of GCSE Higher tier content and a working knowledge of AS pure mathematics is desirable, but not essential.

## Course aims:

- To introduce the fundamental concepts of motion and force
- To provide a basis of understanding of underpinning ideas for teachers to build upon
- To explore and discuss classroom activities including simple practical work

### Timetable for the day:

09.15	Arrival and registration
09:45	Welcome and introductions
10:00	<b>Motion-time graphs</b> <i>Exploring kinematics and understanding and using associated language: position; displacement; distance travelled; velocity; speed; acceleration.</i>
11:30	Break
11.45	<b>Modelling constant acceleration</b> <i>Deriving equations associated with constant acceleration and making links</i>
12.30	Lunch
13:15	<b>Vectors and Forces</b> <i>Combining vectors Types of force, including weight Drawing force diagrams</i>
14:30	Break
14.45	<b>Newton's Laws of Motion</b> <i>A brief introduction to the three laws of motion</i>
15.45	<b>Modelling in Mechanics</b>
16.00	Depart

**Venue:** University of Essex, Wivenhoe Park, Colchester, CO4 3SQ

<https://www.essex.ac.uk/visiting-our-campuses/colchester-campus>

### Course fees and application:

Fees for this course are £50 for delegates from FMSP registered schools.

To apply, please complete the online form at: <https://goo.gl/forms/7iykdz4tudWXnC7k1>

### Further information

For more information email:

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