

Teaching Mechanics 1 Course information

TM1 is a professional development course offered by the Further Mathematics Support Programme (FMSP) and certificated by Mathematics in Education and Industry (MEI). TM consists of two units, TM1 and TM2. This document provides information about the first unit, TM1.

The TM1 unit covers all the content of M1 modules and some content from M2 modules. The TM1 unit will enable teachers to teach any M1 topic on any exam specification (England) and many of the M2 topics.

The course aims to enable participants to:

- gain a deep understanding of the content of the Mechanics modules
- to develop skills with Mathematical modelling and problems solving
- to develop confidence with incorporating practical work within mathematics teaching
- to be able to link topics in Mechanics with other areas of mathematics

Course Structure

TM provides the opportunity for sustained professional development. The course is scheduled over a 7 month period and consists of:

- two face to face study days
- a series of live, online sessions
- dedicated web-based teaching and learning resources

Course Content

- Vectors and resolving
- Kinematics and constant acceleration in one dimension
- Force and equilibrium
- Newton's Laws
- Connected particles
- Kinematics in two dimensions
- Projectiles
- Moments
- Variable acceleration

TM1 can be studied in two ways:

- as a Mathematics in Education and Industry (MEI) certificated professional development course;
- as part of a Postgraduate Certificate in Teaching Pre-University Mathematics (30 CAT points at Master level) through the **University of Plymouth** (there are additional university fees for this option)..

Who should apply?

TM is designed for A level Mathematics teachers who are confident with the material from Mechanics 1 who but who wish to broaden and deepen their understanding. You may be:

- an experienced teacher of A level Mathematics who wishes to learn more about mechanics
- an individual, currently not teaching in a school, who wishes to undertake an extensive professional development course to prepare for future employment;
- seeking to gain a qualification that will give you more options in the future;
- wanting to develop your own subject knowledge to enable you to confidently and competently teach mechanics as part of your A level teaching
- a teacher who has completed **Teaching Advanced Mathematics (TAM)** course or the **Teaching Further Mathematics (TFM)** course;

The Further Mathematics Support Programme is a government-funded initiative, supported by the Department for Education and is managed by MEI.

The FMSP's aims are to

- give every student who could benefit from studying Further Mathematics the opportunity to do so;
- increase the number of schools and colleges offering Further Mathematics;
- increase the number of schools and colleges able to teach Further Mathematics themselves;
- increase the number of students studying AS/A level Mathematics and Further Mathematics;
- provide training and support to teachers of AS/A level Mathematics and Further Mathematics.

Find out more about the Further Mathematics Support Programme:

www.furthermaths.org.uk

Mathematics in Education and Industry (MEI) is a membership organisation and a charity which since the 1960s has worked to support mathematics teaching and learning. Any income generated is used to support mathematics education. MEI pioneers the development of innovative mathematics qualifications and teaching and learning resources. MEI offers teachers of all GCSE and A level specifications a range of continuing professional development courses, provides specialist tuition for students and works with industry to enhance mathematical skills in the workplace. MEI manages the government-funded Further Mathematics Support Programme.

Find out more about Mathematics in Education and Industry (MEI):

www.mei.org.uk