Advanced Mathematics Support Programme®

Continuing Professional Development Standard

National Centre for Excellence in the Teaching of Mathematics

Teaching Mechanics 1 (TM1)

Online and Coventry or London

24th September 2020

Overview

Teaching Mechanics 1 (TM1) is a sustained professional development course for teachers wishing to build their confidence in teaching mechanics. TM1 covers the mechanics content from all major specifications for AS/A level Mathematics.

TM1 consists of:

- Ten live online tutorials, plus an optional extra session for complete beginners
- Two compulsory study days
- Access to our online Integral platform, including course-specific teaching and learning resources
- Email support from a tutor and access to an online group forum

Towards the end of the course a short assignment is issued, for which support and guidance are provided. Course certificates will be available for those participants completing the assignment.

After TM1, participants have the opportunity to continue to TM2, which will further expand understanding of mechanics teaching and cover the mechanics content from AS/A level Further Mathematics.

Aims

- Gain a deeper understanding of the principles of mechanics
- Develop skills with mathematical modelling and problem solving
- Develop confidence with incorporating practical work into maths teaching
- Improve subject knowledge and build on pedagogical skills
- Link topics in mechanics with other areas of maths

Who will benefit from attending?

TM1 is designed for teachers who are currently teaching AS/A level Mathematics, or who wish to teach it at some point in the near future.

Our sustained courses enable teachers to broaden and deepen their subject, pedagogical and pedagogical content knowledge. Teachers, with enhanced subject knowledge, are therefore better equipped to make links between topics, address students' misconceptions and confidently challenge learners at all attainment levels. Our course aims and intended outcomes are consistent with the principles set out in the Education Inspection Framework.

Content

TM1 covers the mechanics content for AS/A level Mathematics.

Materials and Equipment

A computer with a reliable internet connection will be required to attend the online tutorials. In addition, a headset with a microphone is suggested to get the best experience.

Frequently Asked Questions

Do I need to have taught A level Mathematics before doing the TM1 course?

There is no requirement that applicants have taught A level Mathematics before undertaking TM1.

How much time will I need to devote to studying?

It is difficult to be specific as this will depend on previous experience. In the past, delegates have reported spending between 1 and 4 hours studying each week. Ideally, delegates should aim to study regularly for a few hours each week however, in reality many working teachers have weeks when this is difficult and they use out-of-term time to catch up.

It is not our usual policy to allow teachers to enrol on more than one sustained course (TAM, PALM, TFM, TM, TS, TD) at the same time. Please contact us at teachersupport@mei.org.uk before making multiple course applications.

Do I have to hand in any work during the course?

The TM1 assignment is the only work that delegates hand in. To receive a certificate at the end of your TM1 course you will need to submit and pass the TM1 assignment. Certification is optional but we strongly encourage you to submit an assignment anyway to help you consolidate what you have learnt. In the past most teachers have chosen to submit an assignment.

Where do study days take place?

We vary face-to-face study day locations. Recently study day locations have included London, Coventry, Manchester or Leeds.

Cost

This course is free of charge to teachers working in state-funded schools and colleges in England. For others the course fee is £300.

Schools and colleges located within Priority Areas are eligible to receive a subsidy of £250 per study day.

Study Schedule

Please note that the study schedule is provisional. The second study day may also be delivered online if necessary.

Study days

Study day 1 (10am to 1pm):

Online (Saturday)
7 or 14 November 2020
or
Online (Weekday)
Friday 13 November 2020

Study day 2 (10am to 4pm):

London
Wednesday 27 January (full) or Saturday 6 February 2021
or
Coventry
Saturday 30 January 2021

Venue details:

Venue	Address
London	NCVO, Society Building, 8 All Saints Street, London, N1 9RL
Coventry	Centre for Teacher Education, Westwood Lecture Theatre, Kirby Corner Road, Westwood Campus, University of Warw Coventry, CV4 8EE

Online sessions

Online sessions are conducted live and recordings are available for playback.

Evening online tutorials (19:00-20:15)	Study content
Thursday 24 September 2020	Kinematics in one dimension
Thursday 8 October 2020	Introduction to forces and Newton's laws
Thursday 15 October 2020	Optional support session for complete beginners
Thursday 22 October 2020	Applications of forces and Newton's laws
Thursday 5 November 2020	Forces in two dimensions
Thursday 19 November 2020	Connected particles
Thursday 3 December 2020	Kinematics in two dimensions
Thursday 17 December 2020	Projectiles
Thursday 7 January 2021	Moments
Thursday 21 January 2021	Variable acceleration

Assignment:

During February and March you will work toward completing an assignment. The deadline for this assignment is 31 March 2021.

Unit certification: 31 March 2021 (or before)

Key Facts

Event ref:	#7455
Audience:	Teachers
Curriculum focus:	A level Mathematics
Mathematical focus:	Mechanics
Event format:	Sustained Professional Development
Event length:	6 months
Study days:	2
Online sessions:	9
Region:	National
Venue:	Online classroom with study days in Coventry or London
Start date:	Thu 24th Sep 2020
Fee:	Free for state-funded schools; £300 otherwise
Priority Area subsidy:	2 x £250

Registration

For more information, or to register for this event, please visit https://amsp.org.uk/events/details/7455