



## Teaching Statistics 2 (TS2)

10th March 2021

### Overview

Teaching Statistics 2 (TS2) is a [sustained professional development course](#) for teachers wishing to further build their confidence in teaching statistics. TS2 covers most of the statistics content from all major specifications for AS/A level Further Mathematics.

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As a precaution, and to ensure the safety of all participants, this course has been adapted for entirely online delivery. However, we do value the opportunities and networking experiences that result from face-to-face study days. As such, we're keeping our approach under review. If it becomes appropriate and feasible to hold face-to-face study days during the course, we will offer you the choice of attending in this way, or to continue online.

TS2 features:

- 12 live online tutorials
- two study days
- a textbook to support your studies
- access to online 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.

In order to enrol on the TS2 course, participants should have a reasonable understanding of the statistics content of AS/A level Mathematics, ideally through having completed [TS1](#) although this is not compulsory.

Taken together TS1 and TS2 cover the majority of the content of A level Statistics.

### Aims

- Gain a deeper understanding of statistics
- Continue to develop confidence and skills to teach statistics for AS/A level Further Mathematics, focusing on subject knowledge and effective pedagogy
- Continue to develop confidence in working with technology to aid understanding of statistical concepts

## Who will benefit from attending?

TS2 is designed for teachers who are currently teaching A level Further 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

TS2 covers most of the statistics content for AS/A level Further Mathematics and also A Level Statistics. This includes the following topics:

- Properties of discrete and continuous probability distributions
- Further probability distributions
- Bivariate data and regression
- The central limit theorem
- The normal and t distributions
- Confidence inferences and hypothesis tests
- Chi-squared tests and non-parametric tests
- Probability generating functions
- Analysis of Variance

## 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 of the online tutorials

## Other Information

TS2 only runs in the spring. If the course is full or not currently available please complete this [registration of interest](#) form and you will be notified when it is next open for booking.

## Frequently Asked Questions

### 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, TFM, TM, TS, TD) at the same time. Please contact us at [cpd@mei.org.uk](mailto:cpd@mei.org.uk) before making multiple course applications

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

The TS2 assignment is the only work that delegates hand in. The assignment requires you to answer questions based around data sets and probability. Use of technology is encouraged and an explanation of how the topics could be introduced and taught in the classroom is expected. To receive a certificate at the end of your TS2 course you will need to submit and pass the TS2 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.

## Eligibility

Participants must have a reasonable understanding of the statistics content of AS/A level Mathematics, ideally through having completed [TS1](#) although this is not compulsory

## Cost

For TS2 spring 2021 we are waiving our usual course fee/reimbursement arrangements so that this course is free of charge to teachers working in state-funded schools and colleges in England. For others the course fee for TS2 is £300.

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

# Study Schedule

## Study days

Online study days will generally take place between 9:15am and 3:30pm.

### Study day 1

#### Online

Saturday 27 March 2021

### Study day 2

#### Online

Saturday 12 June 2021

### Additional study day arrangements:

To take into account government restrictions and guidelines on safe working, this course has been adapted to run online with 'virtual' study days. However, we still value meeting face-to-face, so if it becomes possible we will also offer alternative face-to-face dates for study days. We will let you know if we are able to do this closer to the time, in which case you will be able to choose then between the online and face-to-face options.

## Online sessions

Online sessions are conducted live and recordings are available for playback

<b>Evening online tutorials (19:00-20:00)</b>	<b>Study content</b>
Wednesday 10 March 2021	The central limit theorem
Wednesday 17 March 2021	Hypothesis Testing: the t distribution
Wednesday 31 March 2021	Random variables 1
Wednesday 14 April 2021	Random variables 2
Wednesday 21 April 2021	Further probability distributions
Wednesday 5 May 2021	Comparing two groups
Wednesday 19 May 2021	Chi squared tests
Wednesday 9 June 2021	Correlation and Regression
Wednesday 23 June 2021	Probability generating functions
Wednesday 30 June 2021	Non-parametric tests
Wednesday 7 July 2021	Testing for equality of variance
Wednesday 14 July 2021	Analysis of variance

## Key Facts

<b>Event ref:</b>	#7874
<b>Audience:</b>	Teachers
<b>Curriculum focus:</b>	A level Further Mathematics
<b>Mathematical focus:</b>	Statistics
<b>Event format:</b>	Sustained Professional Development
<b>Event length:</b>	6 months
<b>Study days:</b>	2
<b>Online sessions:</b>	12
<b>Region:</b>	National
<b>Venue:</b>	Online classroom and virtual study days
<b>Start date:</b>	Wed 10th Mar 2021
<b>Fee:</b>	Free for state-funded schools; £300 otherwise
<b>Priority Area subsidy:</b>	2 x £250

## Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/7874>