



# Topics from AS and A level Discrete/Decision Mathematics: Session 4

## Online Session

8th March 2022

### Overview

This session is the fourth session of four in the series and focuses on Critical Path Analysis. The previous information of the series of courses is contained below for information.

This short PD course over 4 sessions is intended to support teachers in their delivery of the Discrete/Decision Mathematics content for AS and A level Further Mathematics. The topics covered during the sessions will be mainly on the AS specification of Further Mathematics with some A level topics. Topics will include some but not all of the following depending on the needs of those attending the sessions.

- Graph Theory
- Graphical Linear Programming
- Critical Path Analysis
- Touring Algorithms
- Simplex
- Network Flows
- Game Theory

Sessions will include a mix of subject knowledge and pedagogy.

The sessions will be led by Jeff Trim who is a national AMSP coordinator and professional development lead for Discrete and Decision Maths. Jeff has a great enthusiasm for Discrete mathematics and makes the sessions accessible and interesting. The sessions will be supported by Dan Simpson & Yvonne Scott, Area Coordinators for the Berks, Surrey and Hants, and Nicole Cozens, AMSP national coordinator.

### Aims

- To strengthen teachers' understanding of the content of Discrete & Decision Mathematics
- To introduce teaching ideas and resources for Discrete & Decision Mathematics
- To present Discrete & Decision Maths content in a variety of real-world contexts

### Who will benefit from attending?

This short course will benefit teachers who are currently teaching AS and A level Discrete/Decision Mathematics modules for Further Maths, as well as those teachers who may be teaching this content in the future.

# Content

## Session 1

- Graph Theory
- Graphical Linear Programming

## Session 2

- Basic Simplex Method
- The Travelling Salesman

## Session 3

- Advanced Simplex Method (Big M & Two Stage)
- Route Inspection

## Session 4

- Critical Path Analysis

## Materials and Equipment

This course is online. A link will be sent out before the start of the course to all participants.

We recommend that you have headphones and a microphone to allow interaction with the session leads and other participants.

You will need pen and paper for writing.

## Eligibility

This course is for teachers in the South region. Others are welcome to apply and will be allocated places if there is capacity.

## Cost

This event is free to teachers from state schools due to the nature of the AMSP funding from the DfE.

Independent schools may apply but priority for places will be given to teachers from state schools.

## Study Schedule

All sessions will be held from 16:30 - 18:00

### [Session 1](#)

Tuesday 16th November 2021

### [Session 2](#)

Tuesday 7th December 2021

### [Session 3](#)

Tuesday 18th January 2022

### **Session 4**

Tuesday 8th March

There are separate application forms for each session, so you can choose which sessions to attend.

## Key Facts

<b>Event ref:</b>	#9395
<b>Audience:</b>	Teachers
<b>Curriculum focus:</b>	A level Further Mathematics
<b>Mathematical focus:</b>	Discrete
<b>Event format:</b>	Live Online Professional Development
<b>Event length:</b>	1.5 hours
<b>Region:</b>	South
<b>Date:</b>	Tue 8th Mar 2022
<b>Course times:</b>	16:30 - 18:00
<b>Fee:</b>	Free

## Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/9395>