

Presentation pattern October to June

Module description

This module is about using ideas from discrete mathematics to model problems, and representing these ideas through diagrams. The word ‘graphs’ refers to diagrams consisting of points joined by lines. These points may correspond to chemical atoms, towns, electrical terminals or anything that can be connected in pairs. The lines may be chemical bonds, roads, wires or other connections. The main topics of mathematical interest are graphs and digraphs; network flows; block designs; geometry; codes and mathematical modelling. Application areas covered include communications; structures and mechanisms; electrical networks; transport systems; social networks and computer science.

Person specification

The person specification for this module should be read in conjunction with the [generic person specification](#) for an associate lecturer at The Open University.

As well as meeting all the requirements set out in the generic person specification, you should:

- have a good degree (or equivalent) in mathematics
- have experience of teaching mathematics in higher education
- be able to provide evidence of knowledge of combinatorics and its applications relevant to teaching this module (by, for example, successfully completing a pre-interview marking exercise) and demonstrate the ability to quickly develop an understanding of any module material that is less familiar to you
- be able to support the development of mathematical skills and study strategies in students who have varying interests and aspirations and are from a variety of backgrounds with different levels of mathematical knowledge
- be able and willing to give face-to-face and online tutorials, using materials that you may need to produce, that are appropriate for the module and students
- have appropriate IT equipment and skills
- be committed to keeping your skills and knowledge updated
- be able and willing to use e-learning facilities, such as:
 - the module website, and other University websites, to download essential material and to retrieve other information
 - University systems for the purposes of monitoring students’ progress
 - email and University forums for asynchronous communication with students, tutors, and other staff
 - the University’s online tutorial software (training provided)
 - on-screen marking of electronically submitted student assignments in pdf format

It would be an advantage to have:

- experience of Open University tutoring in mathematics, technology or science.

Additional Information

As students on this module will have the choice to submit their TMAs electronically, via the University’s online TMA/EMA service, you will be required to mark and provide feedback on TMAs submitted electronically and to return the marked work as an electronic file, in the prescribed form, to the online TMA/EMA service. You may also need to mark paper TMAs. If you are invited for an interview and the latter involves an electronic marking exercise, some guidance will be given for this. Further information and advice will be available should you be appointed to the role.

The exact nature of e-learning facilities and University systems for monitoring student progress and handling TMAs will evolve in future, and you will need to be prepared to adapt accordingly. Please note that, in accordance with usual University policy, tutors will be expected to use their own equipment for all aspects of e-learning

Module related details - a full explanation can be found on the website

Credits awarded to the student for the successful completion of a module:	30
Number of assignments submitted by the student:	4
Method of submission for assignments:	1b
Level of ICT requirements:	2
Number of students likely to be in a standard group:	17
Salary band:	3
Estimated number of hours per teaching week:	3