

Presentation pattern October to May

Module description

This module builds on the Engineering concepts and basic mathematics in Engineering: origins, methods, context (T192) and Engineering: frameworks, analysis, production (T193). Initially, 8 weeks of study are dedicated to strengthening and consolidation of already visited topics to ensure a robust foundation of numeracy and algebra essential for new concepts. Next, the techniques of trigonometry, calculus, complex numbers and matrices are explored in the context of engineering examples such as motion, heat transfer and basic statics and electricity. The module finishes with guided revision and the development of exam techniques in order to prepare for the final exam.

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:

- interest in, and enthusiasm for, teaching advanced level mathematics in an engineering context at level 1 in a predominantly online environment
- knowledge and awareness of the mathematics needs of a professional engineer
- an education to degree level in a subject containing applied mathematics
- ability to support students in developing mathematical confidence and proficiency
- willingness to develop expertise in the effective use of virtual learning environment tools integral to the module
- the ability to facilitate online tutor group activities
- a willingness and ability to plan and deliver engaging tuition activities in both engineering and mathematical concepts/curriculum areas both face to face and online

It would be an advantage to have:

- recent experience of working in an engineering environment
- experience of teaching engineering and engineering related mathematics to engineering/science students
- experience of teaching adults in further education, higher education and/or distance learning
- a teaching qualification, or professional recognition with a teaching institution such as the Higher Education Academy
- membership of an engineering institution

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:	3
Method of submission for assignments:	2
Level of ICT requirements:	2
Number of students likely to be in a standard group:	20
Salary band:	3
Estimated number of hours per teaching week:	3.5