Presentation pattern   October to June

Module description

Most of the MSc modules are based on guided reading of an individual set textbook and wrap around notes. Students need to successfully complete six modules worth 180 points to be awarded the degree.

Module description

The module teaches advanced mathematical methods with the aid of Maple, an algebraic computing language with graphics and numerical capabilities, but students don't need any knowledge of this language before they begin. Although the emphasis is on mathematical methods, they will use Maple partly to extend the use of these methods, partly to help them visualise the mathematics and partly to enable them to combine conventional analytic techniques with numeric analysis. They will explore various forms of approximations, perturbation expansions, accelerated convergence methods including Padé approximants, asymptotic expansions of integrals and some eigenvalue problems.

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:
- have a good honours degree in mathematics or subject directly relevant to the module contents, together with evidence of successful postgraduate study in mathematics such as a higher degree in mathematics
- have evidence of having worked in an area directly relevant to the module content
- be able to provide evidence of a complete understanding of a large proportion of the material covered in the module (by, for example, successfully completing a pre-interview marking exercise) and demonstrate the ability and willingness to quickly develop an understanding of the remainder of the material
- have the ability to present mathematics electronically and mark pdfs
- be willing to use e-learning facilities, such as:

    o the module website, and other University websites, to download essential material and to retrieve other information

    o the University systems for the purposes of monitoring students' progress
    o email and University forums for asynchronous communication with students, tutors, and other staff
    o the University's online tutorial software (training provided) to communicate with students where applicable
    o on-screen marking of electronically submitted (in pdf format) student assignments (online TMA system).

It would be an advantage to have:
- a PhD in a relevant area
- experience of teaching and examining, particularly in distance education at postgraduate level
- teaching experience in the relevant specialist subject area at postgraduate or third year level.

Additional information

You will be required to mark assignments electronically. These will be in pdf format. You may also be required to mark paper assignments.

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:	1a
Level of ICT requirements:	2
Number of students likely to be in a standard group:	15
Salary band:	3
Estimated number of hours per teaching week:	3