

## Preparatory Mathematics for Engineers

### Lecturer

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**Coordinator in Civil Engineering:** Dr P.A. Sleigh, room 307, P.A.Sleigh@leeds.ac.uk.

### Should you be taking this module?

This module is intended for students who have below a grade C in 'A'-level Maths. It may not be taken as an elective. If your name is not on the printed list being circulated, please add your details to the list, and come and see me at the end of the lecture. Then:

(i) if you are just 'sitting in' and do not wish to gain any credits from this module, normally, that will be OK, provided there are enough seats in the classroom; *please mark the attendance sheet 'sitting in'*;

(ii) **if, however, you wish to take this module as part of your 120 credits and believe that you should be allowed to do so, you MUST go and see Dr Sleigh today to find out whether you are allowed to do that.** *Please mark the attendance sheet 'exam'.*

### Lectures and classes

Mondays 2–3 pm in room 210

Tuesday 1–3 pm in room 210 (there will be a short break in the middle, but please have your lunch before you come)

Thursday 9–10 am in room 210

My current plan is that, when the formal lecture material has been presented, I shall use the second half of the Tuesday session as a 'seminar' where I will present worked examples on the blackboard, and the Thursday session will be a 'practical class', giving students the chance to ask the lecturer questions about the material, and to try the exercise sheets under supervision.

## Absence

Students who intend to be absent from any class **must** inform me, either before, or as soon as possible after, a lecture or by email. Students are most welcome to come and see me at my office; those who wish to see me should arrange to do so by phone or email, or informing me either before or after a lecture. **Students are expected to attend all lectures and classes, and to attempt all exercise sheets.**

## Assessment

20% comes from four marked exercise sheets, 80% from the final exam. The exercise sheets will be marked with a grade on the following scale:

5 *Excellent*: substantially correct and with well-written explanations.

4 *Good*: the majority correct with adequate explanations or almost entirely correct but not fully explained.

3 *Satisfactory*: good enough to pass but with significant errors, or with some significant questions not answered.

2 *Unsatisfactory*: some correct answers, but lots of errors, or many questions not answered.

1 *Very unsatisfactory*: not a serious attempt.

0 *No work* handed in, or handed in after the deadline without an adequate excuse.

**Work must be handed in either to me at the lecture or to the print room, in both cases, by the deadline written on the top of the example sheet.**

If you have some good reason to hand in work late, please see me in advance to ask for an extension. If you do not manage to do that, write the reason on the top and see me as soon as possible. Work handed in late without an adequate excuse will not receive any credit.

This semester homework will be due on October 12th, October 26th, November 9th and November 23rd.

## Prerequisites

AS level mathematics, or equivalent. Including: Laws of indices. Solution of quadratic equations. Solution of simple simultaneous equations. Radians. The graphs, symmetry and periodicity of the sine, cosine and tangent functions. The concepts of differentiation and integration.

## Suitable Books

Many books of A-level, or equivalent standard. eg.

D. J. Booth, *Foundation Mathematics*, 3rd edition, Addison-Wesley, 1998

L. Bostock and S. Chandler, *Core Maths: for Advanced Level*, 3rd edition, Nelson Thornes, 2000