

A4 Integration: video lectures

Enumeration of lectures

The course will have 23 lectures, mostly around 35-40 minutes. The lectures are named in the form

A4 Integration Lecture Nx

Here N is a one-digit number showing which section of the online lecture notes covers the material in the lecture and x is a capital letter A B C or D (or x is blank when N = 0 or 1 (or 9). Thus Lecture 3B is the second lecture on material from Section 3 of the notes.

Correspondence with lecture notes

The material in the lectures, both spoken and written, corresponds very closely to the material in the lecture notes. I suggest that you have the lecture notes available to you when you watch you watch a video lecture.

The lectures have had light-touch editing. In particular, the captions have not been edited, apart from the first few lectures. I suggest that you look in the online notes if you cannot hear or read something in the videos (for example, my writing occasionally goes out of camera shot).

There are occasional mathematical glitches in the lectures. I corrected some of them very quickly in the video. At the end of Lecture 2A I gave a slightly muddled argument in the proof of Proposition 2.2 (2). I corrected this at the start of Lecture 2B, and the proof in the lecture notes is correct.

Correspondence with problem sheets

The following preamble (on Sheet 1) applies to all the problem sheets.

An asterisk before the number of a question, or a part of a question, indicates that it is optional. Such questions may cover proofs omitted from the lectures or other topics related to the course, and some may be a bit harder. Strong students should be encouraged to do some of them, but I would expect only a few to attempt all parts of all questions.

The following lectures cover the relevant material for each standard problems sheet:

Sheet 1 Lectures 0 1 2A 2B

Sheet 2 Lectures 3A 3B 3C 4A 4B 4C

Sheet 3 Lectures 4C 4D 5A 5B 5C 6A 6B 6C

Sheet 4 Lectures 7A 7B 7C 8A 8B 8C 9

I may produce a supplementary problem sheet.