

# Guide to Basic Study Skills

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This guide is designed to help you get the most out of the courses that I teach and many of the points are applicable to all maths courses at Exeter. In particular, there is guidance on written work and maximising your presentation mark on coursework. I know that advice is often easy to forget, so do read it again and again. Keep a copy on your desk so that it's to hand when you are working.

## Written work

- Start your answer to each question on a new sheet of paper.
- Staple the sheets of paper together in the top left-hand corner. Make sure that answers appear in the same order as the corresponding questions on the example sheet.
- Please leave *plenty* of space, especially between questions, so that the marker can write in comments that you can learn from. Don't try to cram in as much as possible.
- Your written work should be neat and easy to read, with legible handwriting and without crossings out, arrows pointing to different parts of questions, etc. This means that you should do a draft first and then write up in neat - please don't hand in rough work.
- Style of written work is very important. Always check to see whether what you have written actually makes sense. In particular, you should write in complete sentences. One trick to help you with this is to read your work out aloud without saying any words or symbols that aren't written on the page. For examples of good style, look in any maths textbook.

- Part of your work is to read your lecture notes between lectures and while attempting problems. For example, there's really no excuse for misstating definitions, theorems, etc. in your written work (they are not secret!)
- Try to pace yourself with work. In other words, don't leave it all until the last night before the deadline! If a question seems very hard at first, it will often become easier if you think about it for a bit and then come back to it a day or two later.

## General advice

- Please don't be shy about asking questions! Asking questions is the only reason I got anywhere in mathematics. You can ask questions in lectures, tutorials, office hours or via email. If you are curious or confused about something, the chances are that the same will be true for other students.
- When attempting a problem, always keep in mind what you want to show and what you know (e.g. the hypotheses given to you and the relevant theorems or results covered in lectures). If you haven't used all the hypotheses given to you, then you have probably (but not necessarily) made a mistake.
- There's famous saying of George Pólya: "If you can't solve a problem, then there is an easier problem you can solve: find it."
- Always be sure to read the question properly! Not doing so is one of the most common reasons for needlessly losing marks in examinations.
- Remember that mathematics is not a spectator sport! Don't fall into the trap of thinking that you can learn the material by simply reading solutions to problems - you have to fight with them yourself.
- Try to avoid the trap of "learning by example" alone. I have often seen students attempt a coursework problem by only looking at a similar example covered in lectures and just "changing the numbers". This won't lead to true understanding and so can lead to a whole world of trouble. Of course, looking at examples is very useful, but you also need to understand the theory (e.g. theorem or algorithm) behind them.
- In order to do well in mathematics, you need to work hard. Remember that the ultimate responsibility for your success lies with you.