Hi!

I’m Dan, a Phys NatSci going into third year and this is just to welcome you to Downing and the NatSci course. There are few things that I wish had been a bit clearer to me at the start of first year so I’ll try and clarify them for you guys this year.

- First thing is: don’t panic about anything! Lots of people say Phys NatSci is a really hard course and in some ways it is but there’s no need to worry about anything at this stage – exams are a long way away and all the courses start with plenty of recap and introduction so you shouldn’t be dropped right in the deep end of anything suddenly. If early on (or later on for that matter) you do struggle, that is still nothing to worry about – *everyone* struggles and the course is designed that way intentionally and everyone is in the same boat. The fact is that all the Phys NatSci courses reach a point before too long where anyone coming out of a lecture thinking that they fully understood it all is mistaken. That’s just because physics is hard and the thing to do is to use the supervisions to really dig into it until you do understand as well as you can. Something I didn’t realise early enough but that’s really crucial is that most of the important learning happens outside lectures – most of the deeper understanding (the important stuff!) comes in supervisions. So get stuck in, but don’t worry about doing well, don’t panic about exams, and try not to get stressed out if you struggle in any way, enjoy fresher’s week and settling in to Cambridge!

- Supervisions can be incredibly useful and are where most of your real understanding will probably develop. This means that it’s important to get the most out of them. The good news is that that’s not that difficult! The main thing is to realise that supervisions are not tests, their only purpose is to help you learn. Don’t be shy about asking questions – whether it’s complicated, hard to express or feels stupid, ask it! It’s by getting questions answered that you can get to grips with things much better than just reading lecture notes so ask lots and don’t be afraid to be persistent or ask lots of different questions – that is literally what your supervisor is there for! I would also recommend writing your questions down in a margin or somewhere relevant to the question on your work or notes, then when your supervisor explains the answer you can jot it down or at least something to help you remember the answer - I asked loads of questions at the start of the year that I had to ask again in exam season because I’d forgotten what my supervisor had said and I hadn’t written it down! And steal your supervisor’s jottings as well, they can be really helpful!

- You’ll choose your courses shortly after arriving – I won’t try and push you towards any in particular but I would say again not to stress too much, as changes can be made as long as you don’t leave it too long after lectures start. I think often the hard choice for Phys Natscis is choosing which maths course to do. You’ll hear little presentations on all the options but if after that you’re still not sure whether Maths B or Maths A would be better for you (or any of your other choices) just have a further chat with your Director of Studies – they can probably help you decide.

- Do talk to your D.O.S. and your Tutor – they’re there to help as well!

- Do go to your lectures! I know some are on Saturdays and I said that Supervisions are the biggest part of developing the really thorough understanding, but that only works if you are
building on the lecture material. Catching up on a missed Natsci lecture can be tricky but it’s important to do your best if you miss one, and try to get in the habit of going to as many as possible—it’s less work in the long run!

- Your practicals will start around the same time as lectures. I can’t stress enough how important it is to not lose your mind over them. I personally found the Materials Science practicals quite fun, and hated the Chemistry and Physics ones. Some people love them all. It really depends but whichever camp you fall into, remember that even though they are assessed, they don’t count for too much. It’s important to do ok in them, but if like many people (and me) you often don’t quite reach the end in time, or normally don’t get a really high mark that’s completely fine. The same goes for the bits of computing you’ll have to do. For various reasons it can get quite stressful for some people and not others, but try to remember that it’s only a very small part of your grade—not worth sleepless nights over!

- Once lectures start, remember not to overwork yourself and that the rest of life is important too—hobbies, exercise and socialising are important if you want to have a good time and look after yourself. Being an actual person can be tricky during the heavier parts of all the Phys Natsci courses, but it’s important for its own sake, and as a bonus mentally and physically healthy people are much better workers too!

I hope some of that is helpful—if you have any questions at all about Cambridge, Downing or even Physics I’d be happy to try and help, so don’t hesitate to get in touch. For now, enjoy yourself!

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