

Advice from former first year students (September 2011).

This document contains the views and opinions of a number of science students who passed their first year mathematics examinations in 2009-10 or 2010-11. It is very important to note that different methods work for different students, and these students are simply talking about what worked for them.

What do you think was the most important factor in you passing your first year mathematics exams?

Believe in yourself, a cliché I know. But I think the main thing is if you're convinced you're going to fail the harsh reality is you probably will. Putting in the work is an obvious one, but 1st year mathematics really isn't as difficult as it may seem and realizing that, I think, is the first main step to passing. Attending all lectures and tutorials and not being afraid to ask any questions about what you don't understand (MSC) will help you start to realize that this is easier than you think.

Making use of the facilities (i.e. the Maths Support Centre & tutorials) and not being afraid to ask for help or stick my hand up in tutorials.

I think that the most important factor in me passing my first year mathematics exams was the additional support of the Math Support Centre.

The most important factor in helping me pass my maths exams in first year was to attend all maths lectures and tutorials, especially in first semester so missing lectures/tutorials didn't become a habit and I stayed on top of my study. The advantages of having maths tutorials every week enabled me to ask questions about different concepts covered in lectures that I might have not understood. The fact that we have small class numbers in our tutorials gives each student the opportunity to interact better with the tutor, thus in turn, we learned from each other.

I think the most important factors in passing first year Maths for me personally were the recommended textbooks, and the Maths Proficiency Course workshops. For the first few months I only used the lecture notes and relied fully on them. I don't think simply using the notes alone is a good idea, as you usually only see one method of answering the question, and you tend to mould every single one of your answers on an example from the class notes. That's not to say that the class notes aren't good, they're great, but when you see other methods or formulae being used, and problems being described in a different way (though it's more confusing at first), it helps you understand the concepts more clearly. Most people ignore the textbooks because they're so long-winded, but I think they really help, particularly Essential Calculus but the linear algebra textbook was brilliant and had time to go into a lot more detail than we can in lectures. If you come into college with quite a weak maths background like I did, it's really handy to have the lecture notes padded out with a really reader-friendly textbook like the linear algebra one. As for the Maths Foundation Course workshops, they were a lifesaver. Their real selling point is the fact that you have a place where you can ask the most basic maths questions which you'd be far too embarrassed to bring up in a lecture, tutorial or even in the MSC.

Went to the 1st Science Maths Workshop for some topics I wasn't good at, like logs.

The most important factor for me passing first year math was simply doing my math assignments, always attending tutorial and lectures and of course studying and going back on my lecture notes.

The most important factor, I feel, to me passing, was engaging with the help provided. I found Peter's extra classes (1st Science Mathematics Workshop) and feeling comfortable enough to ask questions in the MSC invaluable.

The Maths Support Centre was crucial every step of the way, I wouldn't have passed assignments, never mind exams without it.

Throughout the year I kept on top of the course material, if there was something I didn't understand from the lectures or assignments I went to the MSC. Maths is not a subject you can cram for before an exam, it's important to address issues as they arise. Try to get good marks in all your assignments, it will take a lot of pressure off the exam, also the exam can be similar to material asked on the assignments, if you can do and understand the assignments well you should be fine in the exam.

I would have struggled with passing my exams if I did not go to the MSC. The one-to-one help from tutors and working through problems with fellow students helped me to understand the course, notice patterns and learn how to solve problems. Peter Mulligan's extra classes (1st Science Workshop) were also very helpful.

The most important factor was to know that I was able to do the problems, which I had thought I would never know how to do. Another factor was wanting to progress to second year and the degree I hope to get after four years.

I think the biggest factor in me passing my first year mathematics exams would be attending the MSC on a regular basis as it helped me understand the material in a simpler form and also made me realise that I was not the only one finding some of the material difficult.

The continuous assessment mark is very generous and if you try and hand in all prescribed assignments, you are well on your way to a pass which is a weight off your mind before, during and after the exam. Your personal improvement in mathematics: I found the Maths Support Centre a great help during my study, and over time I noticed a definite increase in confidence with maths which has its obvious advantages when sitting the exam. For some students a pass is all that is required (40%) which is a help as 40% is not impossible to achieve if you work hard and stay dedicated.

Attending the maths support centre, attending tutorials and attending workshops

I think that the most important factor for me in passing my first year maths exams was the help and support I received from the Maths Department. I regularly attended the MSC for support when doing my homework assignments to get some more examples and explanation of lecture notes. In the beginning I was very anxious about attending, not sure about what to expect etc., but the help I received right from the beginning helped and encouraged me to keep the head up and keep trying. I couldn't praise the tutors in the MSC enough when I was in first year. They reassured me that I was fully capable of passing the exams with a little practice and determination! Also tutorials were well organised (thanks to Rachel!). I always benefited from going over the homework questions, and the tutor was always on hand if I had any problems there and then.

Good continuous assessment was the reason I passed the exams – as I didn't do well in the exams for maths when compared to my other subjects.

Attending all of my lectures.

I think the most important part of first year maths is to go to the Maths Support Centre from the very beginning. Attending all lectures is vital even though I didn't actually understand the maths until I went to the Maths Support Centre.

Well, going to the Maths Support Centre was definitely a big help to me passing. The help I got with understanding assignments was the main reasons why I passed, because I could look over them before the exam.

In first and second year the biggest help to me was the MSC and without it I probably would have dropped out of college. Reading over notes every night and doing sample questions out of the required maths textbook was also a help. However without the MSC, I wouldn't have reached my potential and also gained the confidence I needed in maths.

The most important factor in me being able to pass maths, was all the continuous assessments, the tutorials and the help from the Maths Support Centre. Without these I would have seriously struggled in the exams. Also, the notes from the lecturer seemed to help a lot, in one of the modules the notes weren't as good as previous modules and that maths exam turned out to be my worst result.

The most important factor which helped me pass my first year maths exams was attending the MSC. I found it very useful and I was able to understand Maths a lot better by attending. I wasn't afraid to ask questions or for help.

Without a doubt I couldn't have passed the maths modules without the Maths Support Centre. Going at times during the day when you could get one on one time for a few hours to focus on exam questions really helped.

If you could give one piece of advice to give to an incoming first year who was worried about mathematics, what would it be?

Don't believe the hype! It's not as hard as you think it is. After some time I realized you can understand the material without doing a huge amount of study. Of course everyone has to put the effort in, but telling yourself there's "WAY TOO MUCH" and giving up won't make things any easier. All the facilities are there for you so don't be afraid to use them, all lecturers and tutors are extremely friendly and helpful.

Relax and don't be scared, but not so much that you don't work hard. You definitely need to practice.

Don't feel like you are the exception, maths doesn't come easily to most people, all you need to do is walking to the MSC and see how many people attend to see that. Make a habit of going to the MSC with your assignments every week to work through them. It is by far the quickest way to work through your assignment and you can be confident that you understand your answers and they are correct.

To not be afraid to ask questions and to make use of the Maths Support Centre when needed.

When I was entering Maynooth, I was very worried about maths as I had studied ordinary level for the Leaving Cert. My one piece of advice is not to be afraid to attend the Maths Support Centre on a regular basis if you are having difficulty with maths assignments etc. Here, no assignment is too hard or question too stupid as the tutors there take the time to help you. By just asking for help here, you would pass your exams!

Organisation! Just things like going to the lectures, keeping ALL your maths notes in the one folder/hardback, in order and make sure everything is dated. Also, lecture notes can be really messy and unclear, especially in particular modules when you're using a particular method etc. with all the diagrams. Seeing my own notes and my friends' notes on that section was horrible, none of us could make out what any of the little abbreviations on our diagrams were, there were things crossed out and scribbled over, and arrows everywhere, it was such a mess. Take neat notes in class, but if you can't, then rewrite all your notes when you get home. To realise the week before your maths exam that you can't find half your notes, and can't actually read, let alone understand the other half, is so disheartening, and it seems to be a really, really, common problem.

Go to the Maths Support Centre when ever you're not sure.

My advice to an incoming first year who was worried about mathematics, would be, whenever you are stuck on math, ASK FOR HELP! The Maths Support Centre is available to help.

My one piece of advice for a first year would be to not let your previous fear of maths hold you back. This is a new start and all the help you need is there so ask for help and take it.

Don't be worried, take full advantage of all the support you can get and don't worry about feeling or looking stupid. Get your head in the books from the start and keep on top of it

Never give up on maths! There is not a huge amount of information to learn. Once you find patterns and learn how to solve problems maths becomes less challenging.

Don't worry about it. I was in the same position last year and there is loads of help available to you, like the Maths Support Centre, tutorials, the workshops and the tutors and lecturers will always give help if you need it.

To relax and to just attend all the lectures as they really are vital in you passing and to attend the MSC regularly. Even if you feel you can do the material you can see if there is a quicker way to do the work.

My advice to an incoming student worried about mathematics is not to worry unnecessarily as the course is not impossible. The Maths Support Centre and the new schemes are there to help when you are even the slightest bit confused. It is not just for assignments but the general understanding and problems you may have with understanding lecture material (I know I went many times for this reason as I was too nervous to ask in a lecture). I agree completely that students learn best from others near their age and there is a comfortable atmosphere in the MSC.

That it is not as bad as you think. Once you find out what the question is asking you to do you are half way there. It is passable and there is plenty of help if you look for it and if possible go the MSC.

As an incoming first year starting my degree, I was petrified, to say the least, at the thought of Maths lectures. I had never come across Calculus properly before and I thought at day one I was going to really struggle. And struggle I did! Well for the first few weeks anyway. I found lectures difficult to tune into because it was nothing like I had ever seen before and also the lecturer moved very quickly to new topics without reviewing others. Soon I discovered the support and encouragement of the Maths Department and I started to notice an improvement in my ability to do maths. Most importantly for me, I discovered I actually liked maths!! The advice I would give to first years is first of all, not to panic! Just take your time,

attend all lectures and definitely all tutorials, try all assignments and always hand up something. Do not hesitate at all to ask for help when needed and without a shadow of doubt attend the MSC. Most importantly, I would tell them not to give up, keep trying, put in the work and it will definitely pay off. It did for me!

Work at it – use the MSC and attend the tutorials, they are very useful.

Practice what you study every night until you're able to do the exercises by yourself. If you fail to do so, the Maths Support Centre is a great help.

Try to get as high marks as you can in your assignments and mid-term tests while understanding the material. It will help your overall result. I find maths very difficult, but if you put the effort in, the results show that it pays off. I also found past papers very helpful.

My advice would be to go to all lectures because that is where you learn the most. Also, ask other students about their difficulty in maths and talk about it. It could help.

To an incoming first year, I would advise not to panic!! Everybody who worries over maths gets a mental block with maths and "can't" becomes a frequent expression. Stay calm and work a little every day, you won't learn everything overnight. Go to the MSC as many times as you need help every week, do practice questions and talk to your lecturers. Also ask friends for help, two heads are better than one.

My advice would be attend all lectures, use the Maths Support Centre and try interacting with other students doing maths and talk about the assignments, as they might have a different and more simplified understanding of the math compared to the lecturer.

The advice that I would give would be, not to worry about it too much. It's not worth worrying about. At the beginning I used to stress about it so much because during the first couple of lectures I didn't seem to understand anything that was going on. However, it all began to make sense after a short while. Also, I would advise them not to be afraid to seek help if they are struggling with something. And also attend the MSC regularly.

Attend lectures. After lectures, look at exam papers to see if anything comes up. Go to the Maths Support Centre and try getting your head around it. There's no easy way to learn maths you just have to keep working at it. Working in groups to do assignments helped also.

If you have any questions or queries do not hesitate to contact supportcentre@maths.nuim.ie and check out

<http://supportcentre.maths.nuim.ie/>