

Dear girls,

I am writing to you today to share some advice I have gathered throughout my studies at the University of Sydney and my career as a mechatronics engineering intern at Thales Australia. As young science, maths and engineering enthusiasts, you are probably wondering what it is like to move into a degree or career in STEM. What does it mean to be a scientist, a mathematician, or an engineer? How do you decide who or what you want to be?

The most honest answer I can give is that no degree or career that you embark on is fixed and the opportunities in STEM are endless. You can design like an engineer one day and research like a scientist the next. When making that first leap and deciding what you want to study, use your high school years to figure out what areas of STEM you like. If you love maths and statistics, consider moving into finance or trading. If you love physics and design, consider engineering and computer science, and if you love discovering new things consider science and research. Remember that it is okay to change your direction at any point and it is okay to pace yourself when navigating your future, there is no rush!

If you make the rewarding decision to move into the world of STEM, it will take some time to adjust. University is different from school, and the workforce is different from university. Each new job you start will be different again. The beginning of your tertiary studies and career is a chance to become comfortable with change and rapid learning.

Naturally as humans when we start new things like a new degree or career, we feel expectations to either know things or pick things up straight away. The truth is, *it's okay to not know everything*. When you start a new degree or a new job you may only know 10% of all the things there are to know. This is an awesome position to be in! You want to be in a place where the people around you have different knowledge, experiences and insights to you. That is how you grow and learn.

My final piece of advice is to give yourself time to *work in the research and development space*. A lot of the time as we start our careers, we get excited about the opportunities to work in big and established projects. While these projects are great places to learn from others, I have found that the most rewarding learning comes from work you do in small research projects, student-based projects at university, or ones you do in your own time. These smaller projects give you the space to make mistakes, try again, make the mistakes one more time, and then realise you must start from the beginning again. Embrace that sometimes research work can be challenging, but enjoy the freedom you get to design, build and test new things - that's why a lot of us choose to be engineers after all!

To finish, I want to remind you that no matter what degree or career you choose, nothing in STEM is ever fixed. Prioritise embracing the skills you learn along the way, they will stick with you for a lifetime. Don't shy away when things get hard, make lots of mistakes, and take your time to work out what you want and what is right for you.

All the best,  
Ameline Archis

