

A DAY IN THE LIFE OF AN INTERN – WOMEN IN STEM

Adapted from Elisa Morgillo's student presentation to SNC-Lavalin staff.



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Elisa Morgillo undertook an internship with SNC-Lavalin as part of the Austmine Women in STEM: METS Career Pathway Program. This was Elisa's first placement and insight into the world of engineering. Elisa came into this internship not knowing what to expect but was ready to learn and to really understand what an Engineer does and how she could use her degree in the future. Elisa describes this as an amazing educational experience.

As part of her internship, Elisa was required to present to SNC-Lavalin staff and executives on her experience during her placement. This is just one of many success stories Austmine has been lucky enough to forge as part of the Women in STEM Program and Austmine would like to thank Andrew Curtis and his team at SNC-Lavalin for taking part as a host employer in 2017.

Elisa Morgillo's account of her internship:

I was lucky enough to be placed in one of SNC-Lavalin's project teams and from day one I was made to feel welcome and included. I was told by many people not to be afraid to ask for help and to approach staff whenever I needed. This made me a lot more confident as my number one fear before starting was that I was going to be constantly bothering people for help and interrupting them. It also became obvious very quickly that management were approachable and well respected by all staff in the office.

Within the first week I was given a lot more independence than I anticipated. Instead of shadowing an Engineer I was given my own work station and tasks. I was asked to create a package dictionary for the project. While this task involved data entry, it gave me a good insight into the project and enabled me to meet lots of people working in different areas of the project, such as procurement and document control. By the end of the first week it was also noticeable that this was an engineering office, not just a business. There was one conversation that hit me when a group of staff were getting excited about a certain pipe diameter!

I was also given a variety of small tasks including piping calculation checks, document editing and creating calculation templates. This gave me the chance to see individual parts of the project in detail and helped me to understand what the role of an Engineer may involve. It was also



interesting to see how elements of theory from my university degree was applied to a real-world situation.

I got to do some work analysing technical bids for agitators. It was interesting to see how different companies interpreted the requirements given to them and provided a variety of different designs. I got the opportunity to read through the process flow diagram, so I could use the battery limits to assign various pieces of equipment to the company responsible within an alliance. This gave me a good overview of how the plant functioned.

I was then given the opportunity to visit a mine site and see the processing plant. As soon as we entered the office I was fitted out with gloves, safety glasses and a hard hat. I had never been on a site visit before, so the scale of the operation was phenomenal, both the physical size and budget. Being able to see and climb huge pieces of equipment, when all I had seen was diagrams, was such an enjoyable and educating experience. The fact that we had drivers to get to different areas of the plant is not something I was expecting and truly emphasised the scale of everything around me.

The detail of the plant was also very impressive. Small things like lightning protection or a rip detection sensor on a conveyor belt were things that would have never crossed my mind or the simple ideas like gravity that were applied to such a huge project and how effective they were. Pushing up ore in a jet of water and having the large heavy ore sink while the smaller pieces filtered out the top was a prime example of this, as were the spiral classifiers.

The lab was also incredible, seeing a lab full of automated robots and monorails that went around the plant to pick up samples when I didn't even know processing plants had labs was impressive.

I think one of the most important things I learnt was how an iron ore plant works and that most of the theories behind it, were simple. I did not realise that the processing of iron ore involved sorting it into fines and lumps rather than using lots of chemical processes to refine the ore. Even just learning what a reclaimer, spiral, screen, sizer or stacker was and how it operated was exciting and something as a student I did not learn about in university.

I was given the opportunity to sit in on a client meeting and I found it really intriguing watching all the interactions between various people and seeing how everyone reacted differently to things. It was also encouraging to see that everyone was given the opportunity to speak and have their opinions heard.





Towards the end of my internship I was partnered with a Graduate Engineer to complete pipe velocity calculations. This task, gave me lots of exposure to process flow diagrams and process and instrument drawings to obtain flow numbers, metsim numbers and line sizes. I was given the opportunity to learn about and work with piping specification charts. This was probably the most challenging task I was given, but also one of the most enjoyable. It involved a lot of problem solving, calculations and teamwork, and was overall a great experience.

This was a huge learning curve for me and made me really appreciate how lucky I was to be surrounded by the people I worked with. I would like to thank everyone at SNC-Lavalin for helping, teaching and supporting me throughout my time there.

