

Engineering Applications and Study Skills

Module Code: M4X02063

Reflections on foundation year

Reflecting on last has made me realise how good of a decision it was to do foundation year. From not practicing physics and mathematics since GCSE my skills at the start of year weren't as sharp. However, after a few lectures I was back in full working force. This is backed up by my results in the mock exams by receiving over 80% in mathematics. However, did not do so well in engineering science I manage to fail the module which I am devastated by. But with this second chance I am sure I will pass it this sure, learning from my mistakes.

Simple Pendulum

We were given the task of studying simple harmonic motion. First, we had to execute an experiment called simple pendulum. After the experiment I had to do further research into simple harmonic motion discovering how different angular of displacements and heavier objects have a different oscillation.

In this piece of work, I received 44/100. I am disappointed with this mark, I should be aiming for a merit or above. I believe that my ability to identify problems and propose a basic conclusions and alternatives however, there were errors in my solutions, and lacked depth of understanding in breadth. Reading through my work the level of supporting arguments and judgement were good but were undeveloped and sometimes I mis-interpreted the findings. I received feedback saying "Generally I think you demonstrate a lack of understanding by the amount of unrelated material you have included. Your report is also missing some key feature of professional report well, even though your understanding of it is not the best." as pointed out in the comments. Happily your analytical work has come out fair I agree with this feedback in future I will do more in depth research on the public library. I lost a lot of marks on the graphs, by not adding certain titles and labelling, now that I know where I went wrong there I can claim a lot of marks back on my next assignments. Only I am to blame for such a poor mark I left the assignment too late and rushed on the last few days. For this I have been punished by failing the module. This year I will plan the assignment out by giving myself more time to perfect it. I shall do more in depth research and receive a higher grade.

Engine Technology Poster

The brief was to write a technical poster on a chosen subject, I chose to do this one on the History of Engines.

The final mark for this technical report was 54/100, some of the feedback received stated that "all figures should be labelled and explain what they are." another one is "There is a lot of good information on the poster but it could have been presented better." and the final part of my feedback was "it doesn't necessarily flow very well. It jumps from turbochargers to forged engines to starter motors and it is hard to see the link."

All parts of the feedback I received I believe to be fair and a good representation of my work, because I know that this work was rushed to make the late deadline so I know that I just regurgitated information onto the poster in a very random order and it had little to know real structure to it, I feel as if I placed the pictures all over the page and made a mess of it, this is because I had finished putting the information down but I had forgotten to give structure to the poster, so I had to put them into the gaps to fit the text. However I didn't work because to fit them in and as I didn't have a lot of space they had to be big to fill the gaps, to fix this I would definitely put the pictures on the poster first with a small caption explaining what the picture is, I would also make

sure that the poster is a relevant picture to improve and develop the text, rather than just a random picture that isn't relevant to the text. Looking back over the technical poster I can see that some of the information I have put down isn't massively relevant and the good information is trapped within big blocks of text that hide the useful parts of information and make it really hard for the reader to pick out the relevant points and facts, that I want them to know. Although it's quite a simple thing to fix by removing the unnecessary parts of the text and bullet pointing the individual facts, and having an explanation under each point to develop the facts and transfer the knowledge I have researched to the reader, it's also difficult because you have to carefully select the facts that you feel are the most important. As the whole point of a technical poster is to be concise information with simple explanations developing the facts in a well organised structure that is easy and simple for anyone to read and learn about my research. The final part of feedback given was "The introduction paragraphs is too long, while in the third column there is quite a lot of white space. The poster just looks a bit unbalanced." again this is a good piece of feedback as I had a very simple and relatively small reference list but again I rushed to get the report finished in time to get marked. My opening paragraph was too long; it should have been a short brief and then filled the poster with fun, quick easy to read interesting points. I feel that due to rushing my work more relatable citations which will link the titles better because the information was confusing and somewhat misleading to read and not many points made linked to each other, If I had the chance to do it again I would spend more time proofreading and making sure all the information is relevant.

Overview

I feel foundation year taught me a lot of things especially that you can't rush work. Assignments must be planned out and do research into the topic before typing. This was definitely a weakness of mine leaving things at the last minute. However this can be easily fixed and my results from the years to come will prove I am right. I feel that I didn't have many strengths however the few that I had were strong, I am familiar with CAD therefore engineering design came easier to me than most students. Also Matlab I did bit of coding on computers in GCSE so I had a head start on other student. However I feel my greatest strength will show this year because I was disappointed in my results, therefore I feel that my biggest strength will be the will to change my work ethic and achieving my goals. I made many changes this year after learning from my mistakes, I am taking more notes in class starting assignments earlier, doing exercises on Solidworks and Matlab to be more familiar with the software for the years to come.

Conclusion

By writing this report made me realise and what I need to do to be a great engineer because I am more eager to solve, design, work with others, create everything first year has to offer. I will be working harder than ever before, the reflective report has made me realise what I need to do. Therefore I will be going into first with more confidence in achieving my goals.