An Overview

Throughout my studies, I have come to understand a lot of theory associated with the subjects taught in pathology and physiology. Initially, upon taking up the course “PATH3208: Cancer Sciences”, I was expecting a lot more of that. It was a pleasant surprise when I discovered this subject was a lot more than just theory. A combination of co-curricular classes, group work and tutorials (in addition to lectures) has allowed me to better understand possible career paths for the future.

Co-curricular Classes: A look into research

First and foremost, although there is theory in this course, I have definitely come to appreciate the co-curricular classes. The co-curricular classes have been a great experience and to be completely honest, I had always wondered what all the high-tech equipment looked like and how they functioned.

Being able to see the technical side of the clinical pathology was a great experience. As I was never able to see the actual mechanics involved in any machine, getting to hear from clinicians and medical physicists was definitely a rewarding experience. Despite the fact I had known that when treating cancer, a multidisciplinary team is needed, I did not really understand how many people were actually involved. Previously, I had always just pegged it as just a surgeon and a treatment technician (e.g. radio technician). However, being able to meet these physicists, chemists, surgeons and researchers helped me come to the realization that the treatment of cancer, if not science in general, is not just about one discipline. It’s really about a collaborative approach which interconnects all the disciplines, in an attempt to better the lives of humans. To be completely honest, I never really thought of it like that before this course. Although I was so keen to throw myself into research, I had never realised that other streams of science such physicists and chemists (e.g. for radiotherapy machines or the development of nanoparticles), were actually so involved with medical science.

Group Work

Throughout the course of my university life, group work has definitely played a huge part. Group work, I have come to discover, is a lot about communication and patience. My views on group work have definitely evolved from “oh, it’s just another assignment” to “this is a new opportunity to further develop my skills in a collaborative setting”. The group work assignments which I have been a part of have challenged me to develop my team work skills as well as my leadership skills. The hard part about group work is that there is a distinctly fine line between being overbearing and being too submissive. For example, if a team member doesn’t show up to a group meeting, being firm but understanding is, in my opinion, the best way to approach this problem. However, when it becomes a repeated situation, I definitely tend to get a bit misgiving and bossy. Although this may seem over-rated and a bit anti-climactic, I have come to discover that the most important thing for me to do is to take a deep breath and focus on the positive. I have come to realize that focusing on the fact that only one other person showed up to the meeting, is still one person and one is better than none. I have come to realise that it is much better for me to focus on the two of us who are there and get as much done as possible. Although in an ideal world, everyone would be able to keep on top of their
work and come to group meetings, the truth is that doesn’t always happen - things will come up and people will cancel. As mentioned previously, I can definitely see a lot of collaborative work in the future and in my chosen career path. I have come to understand that group work is great practice for future collaborative work and it has definitely taught me what I don’t want to do – cancelling is okay because things come up, however, last minute cancellations (in my opinion), unless it’s an emergency, is absolutely unacceptable and disrespectful to your other team members.

Communication has definitely been of utmost importance and I have come to appreciate the use of social networking more than ever this year. Using messaging services such as Facebook has definitely allowed for a convenient method of communication, especially since I live so far from university. Utilizing the features of Facebook, such as creating a group, has allowed me to share information with my group, as well as keep them updated on meeting times and acts a reminder for ensuring everyone has completed their designated tasks. Furthermore, Google Docs and Google Slides have been an invaluable tool for group work, allowing group members to edit a shared document in real time. One thing that I have taken away from the use of social networking and sharing websites, however, is that group members tend to not fully appreciate the value of a group meeting, thus resulting in them last minute cancelling for some of the meetings.

**Critical Thinking**

Critical thinking has always been an invaluable skill which I have developed throughout the course of my university life. In second year, my curiosity for science was encouraged, and under the guidance of an advisor by the name of Gwynn Jones, I was able to finally understand what critical thinking was. As simple as this may sound, it was about being able to think for yourself, to question what you read and to challenge your mind – which I realised was a lot easier said than done. Although since that time I have often challenged myself to think critically about what I read in literature, it was surprising to realise that my peers actually helped with that process. For example, in my PATH3208 project group, we had a girl who studied biotechnology. As most of my group studies science with majors in pathology, pharmacology or physiology, it was great to hear a fresh perspective on the problem at hand. More specifically, in the *in vitro* component of our project design, she introduced the idea of using shRNA and genetic silencing as opposed to what the rest of us had thought of which was using a drug as an inhibitor. It was definitely a great experience and I look forward to working with people from different disciplines in the future.

In communicating with peers, sharing opinions and having discussions, my understanding of any given topic is usually broadened and my viewpoint on the matter isn’t quite as narrow anymore. I can say with certainty that this new idea of communication enhancing critical thinking will undoubtedly aid me in the future. No matter what I have in mind for the future, almost every career seems to have team work involved. This has allowed me to come to an understanding of the significance of collaborative work – not only in working together to achieve something great, but also allowing other people to enrich my understanding and help me to develop a wider, more holistic approach to a problem or situation.

**Newfound Understanding of Statistics**
Up until the tutorial/lectures in this subject, I have had absolutely no background in statistics. Professor Yang's lecture on statistics definitely allowed me to gain a better understanding of how broad and how complex statistics actually was. In science and research, a solid understanding of statistics is a must. Going into the lecture, I was introduced to the idea of the null hypothesis, alpha and beta errors, power, bias and so on. Although it was definitely a lot to take in, I really appreciated the tutorial later on down the track, which really helped to bring all the different kinds of statistical methods introduced to us together. The e-learning website has been tremendously helpful in not just cancer sciences but also my other courses such as neurophysiology. I am extremely happy with my progress of understanding in statistics and I can only aim to better understand the methods used. I am absolutely certain that statistics will definitely be crucial for me to be successful in my chosen career path and so, I look forward to further developing my knowledge of statistics.

**A Future Plan**

If I can successfully integrate the lessons I have learnt into my career and my future, I think that I will definitely be able to more easily relate to people, be more understanding and also be able to understand the significance of statistics. I really think that this course has taught me a lot and not just in terms of theory. It has prepared me for the possibility of being a researcher. I am, without a doubt, excited to take this next step forward. Furthermore, group work skills, leadership and critical thinking are skills which I cannot perfect in a day or even a year. In the last few years (and not just in this course), I have come to discover that it really is just a progressive task. However, although these skills may be overlooked as "simple and common sense" I really beg to differ. I think that in putting a conscious effort into developing these skills, I am not only developing myself in a teamwork setting, I am also further enriching myself as a person. I definitely look forward to seeing further improvements in myself.