

Wong Tit-shing Student Exchange Scholarship

Exchange Learning Report



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Department: BME

Country: The United States of America

Host Institution: Washington University in St. Louis

Exchange Period: 21 August 2017 –20 December 2017

I. My Learning Experience in WashU

1.1 Challenges

The most challenging class that I took was a course called Bioelectric Phenomena. This course provides a quantitative introduction to bioelectricity in the human body and puts emphasis on the neural system. I chose to take the course because I am planning to study neuroscience in graduate school. I am curious about the detailed mechanism of nerve electrical impulse and how scientists observe the electrical activity of the brain. Unfortunately, this undergraduate level course required too many background knowledge that was taught only at WashU but not at PolyU. As a result, I had a tough time completing the assessment requirements. During the semester, we are required to complete two projects with the powerful computing software MATLAB. Although I have been exposed to MATLAB coding before, my experience was still lacking compared to that of WashU students. As a result, I had poor performance on those two projects.

Jess,
The main issue I think you had with the projects is that you did not have a lot of experience with Matlab. WashU students start using Matlab their freshman year. Without a good background in Matlab, it is very difficult to understand the homework. In any event, you worked hard on the course and attended every lecture so I took that into account in your final grade. As for research, you really learn those techniques in graduate school.
Best of luck,
Prof Moran

The email that the lecture wrote back to me.

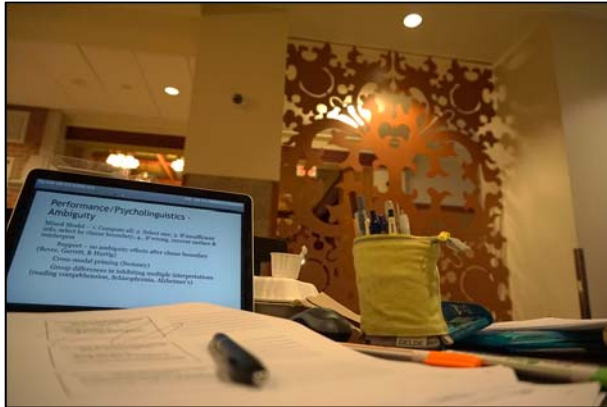
1.2 What I learned from the challenge

Despite the frustration I encountered, this course has still inspired me. The failure I had in MATLAB made me realized what I am lacking and leads me to plan for studying MATLAB this semester to make me more competent. On the other hand, although I might not understand 100% of the content taught, I am still fascinated by the world of electrophysiology and the things we can do with this knowledge. I was so delighted when the lecturer mentioned how they are creating a robot limb that can be directly controlled by one's brain. The course made me more determined to pursue a degree in neuroscience in the future.

II. Career Aspiration

2.1 A Widened Path

Another course, cognitive psychology, on the other hand, has broadened my thinking about my future and career path. The ideas introduced in the subjects made me appreciate the capability of the human mind. For example, we have always regard being



Studying Cognitive Psychology at the school cafeteria.

able to comprehend another people's speech as a natural and subtle thing. But in the topic 'Pattern Recognition,' which deals with how people recognize patterns such as words or speech, I get to appreciate this seemingly subtle task that we do every day and realize how delicate and intelligent our brains are.

III. Respecting Other Culture

3.1 The night at WILD



The 'Welcome to WILD' flag

The most unforgettable night during my exchange experience is the night of WILD. WILD is a concert that is held every semester in WashU. This time, the artist that got invited was Lil' Dicky, a controversial white rapper that is known for his racist behavior. As a result, students who are against racist behavior were upset about the choice and decided to host their own version of WILD. It happened that the friends whom I joined WILD with were among those students. That night, right before Lil' Dicky was about to come out, a group of black students gathered together and marched out of the venue where the concert was held, and I joined them.

We kept yelling 'black voices matter' and stormed out of the venue. I was a bit worried if we might get into trouble but soon realized that even the school police were supportive of our behavior. We had a lot of fun at another venue at the campus eventually. And that night will never be forgotten.



Students dancing at the 'Black WILD'

3.2 Reflections of WILD

That night unquestionably enhanced my understanding towards the American culture. Being exposed to the minority of the group, I saw how brave they are to speak up and fight for their rights. It also makes me reflect on my own experience back in Asia. Growing up in Taiwan and studying in Hong Kong, I have always lived in places where my ethnicity belongs to the majority. Although the concept of 'respecting cultural diversity' is taught in textbooks, I never realized how important it is. The night at WILD has deepened my understanding towards cultural diversity and make me respect people of different ethnicity more.



I love riding my bike around the beautiful campus

IV. Schedule

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|------|----------------|-----------------|----------------|---------------|------------|
| 0830 | | Introduction to | | Introduction | |
| 0900 | Cognitive | Scientific | Cognitive | to Scientific | Cognitive |
| 0930 | Psychology | Reasoning | Psychology | Reasoning | Psychology |
| 1000 | Bioelectric | | Bioelectric | | |
| 1030 | Phenomena | | Phenomena | | |
| 1100 | Bioengineering | | Bioengineering | | |
| 1130 | Thermodynamics | | Thermodynamics | | |
| 1200 | | | | | |
| 1230 | | | | | |
| 1300 | | | | | |
| 1330 | | | | | |
| 1400 | | | | | |
| 1430 | | | | | |
| 1500 | | | | | |
| 1530 | | | | | |
| 1600 | | Bioengineering | | | |
| 1630 | | Thermodynamics | | | |
| 1700 | | (Tutorial) | | | |