Assignment #6

Part 1: Concise Career Plan

The more I progress into my field of study, I discover new interests in areas that I had not considered before. I believe that having many interests can be beneficial because it allows one to have a bigger picture when it comes to problem solving. So, my goal is to always maintain an open mind about my career and follow my natural tendency to want to learn new things as I progress in my career.

First, as a senior student, I will be graduating in one year with my Bachelor of Science in the field of Materials Science and Engineering. There are many industries and types of jobs in my field of study. The opportunities are vast and include jobs in Aerospace, Microelectronics/Semiconductors, Medical Devices, etc., and positions such as Metallography, Process Engineering, Manufacturing Engineering, Failure analysis, Microelectronics Packaging, Quality Control, etc. The skills required are also vast depending on the type of company, department, job position and level of education. There are, however, certain skills that are most widely required for different positions such as some programming skills (MATLAB), Design of Experiments (DOE), Six Sigma and knowledge of characterization techniques (SEM, XRD etc.). As a Materials Scientist and Engineer, such skills are essential to a successful career, and in order to prepare myself for the future, I am planning to acquire these skills through my work in the FURI project, Capstone Design project as well as choosing the right Technical Elective courses (DOE, Six Sigma).

The next important step in my career path will be to obtain an internship for the Summer 2019. As a transfer student, I had limited time to prepare for the career fair last year and have not been able to acquire an internship position in industry. Therefore, one of my main goals is to be able to get that kind of experience. I am actively working on applications for different positions with different companies in order to increase the chances of obtaining an offer for an internship. The timeframe for the applications depends from company to company, with some positions closing earlier this fall and others closing later in the spring. Having this kind of experience will also help me understand the environment of working in industry as compared to academia and will allow me to make more educated decisions about the courses that I choose during the next year in school as a graduate student.

After the summer, I will continue my education in the 4+1 program as a Masters student and researcher in the laboratory where I am currently performing my FURI research. I anticipate that the laboratory experience will further develop my technical skills as a Materials Scientist, while the courses will allow me to explore more specialized areas in my field.

Finally, upon graduating with a master’s degree I hope to find a job as a research and development Materials Engineer. There are many interesting job openings that I come across that require a master’s degree as minimum qualification. So, I am excited to get to the point where I qualify for those positions. As I mentioned earlier, I am always in the lookout for learning new skills, so in the future it is likely that I will go back to obtain a PhD and become a leader in the research and development department of the company I work for. However, I want to gain industry experience first to get a better feel for the types of positions that I enjoy the most and specialize in the future.