

Engineering in North America



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I feel fortunate to portray my thoughts on the varied discipline of engineering sciences for students at this institute. I certainly do not claim to be an expert on anything, my intention is only to share my thoughts and experience. My insights are primarily premised from a design engineering standpoint since my experience relies upon designing systems for buildings in the United States and Canada. There is a strong culture of all varied fields of science in the US and Canada. There is a strong bond between the Universities and industry which exposes students to hands-on experience and get a grasp of work cultures in the industry. My experience working in design engineering has been very enriching and intriguing on how well oiled the machinery is. From a design engineering standpoint, a lot of emphasis is on codes (Engineering standards are called codes in the US and Canada) and specifications of engineering equipment and systems. There is high demand for design engineers in North America, and the expectation is to get a few years of experience with designing and later escalate to a senior engineering position more focused on the business side of managing clients.

For students who are currently in institute, I think there is huge scope to learn about various aspects of engineering and get acquainted with various options that they have after graduation. Keeping your eyes and ears open for opportunities in the industry always helps in getting in line with the expectation of the industry. I have often heard people saying that they need more practical experience, which is commendable, but it is also true that the speed of grasping practical experience is highly dependent on how strong the theoretical fundamentals are. So, I would suggest students focus on the variables which are controllable and try to gain more fundamental knowledge of the respective discipline of engineering.

Failures will happen, no matter how much one tries to attain perfection, but the most important part is to learn from the errors and try to improve them the next time. Apart from the technical aspects of the day-to-day life of an engineer, something that I got to learn is working in a very diverse and cross-functional team. Usually, while working in teams at universities and in companies as well, we get a chance to work with team members from countries like China, Germany, Ghana, Korea, and many more. In my opinion, working in cross functional teams is a very humbling experience because it triggers many different think tanks in our brains to only make us realize how much talent there is on this planet and there is a long way yet to arrive (This is termed as exposure in our sub-continent). I am very optimistic for students who are pursuing engineering or intend to pursue their careers in engineering. Nonetheless, on the social aspect, there is always some sense of self-discipline and integrity involved from the individual who intends to invest their time in any field. I also highly encourage students to reach out to me for any questions that they may have, I will be more than happy to interact and listen to their point of view.