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Washington University January Intensive Program 2005.
Personal Individual Off-Campus Project: Winter Term Report.

My winter project involved taking an Engineering Mechanics class at Washington University in St. Louis, Missouri. I decided to take the class in order to experience a “real” Engineering class in a strict Engineering setting, as well as the Engineering program as a whole. As a 3-2 Engineering major here at Oberlin almost out of the door into Engineering school, taking this class was definitely a good way to test the waters and prepare myself both intellectually and psychologically before actually getting into the program proper.

The class (which was from December 23, 2004 to January 11, 2005), definitely lived up to expectation in terms of intensity, but only because we had to learn in two weeks what would normally be taught in one semester. Nevertheless it was enjoyable to observe and interact with many like-minded students from other liberal arts colleges. The 3-2 Engineering department, being very small here at Oberlin and relatively unknown, always made me feel I did not have a “true” major. As such it was very relieving and reassuring to be among such a group of about thirty students.

Classes were for six days a week and lasted two weeks. They began at 8.30am and continued until noon. After an hour’s break for lunch, we would then spend the rest of the afternoon working on problem sets until 5pm. We had three teaching assistants to help us during those periods. Back at our hotel, we would rest, get some dinner and then finish off what was left of our assignments. Those who got done early were free to watch TV, play games or just lounge around, which was just about rarely!

It did take a lot of discipline to sit under three-hour lectures, which was very much unlike the fifty minute ones I am used to. Working on the problem sets also involved a lot of collaboration and sharing of ideas although the write-ups were to be done individually. Working together in groups made us realize the need to build strong friendships with our classmates, since they would end up being our support system during the stressful and frustrating times of our Engineering program. In many respects, the zeal that kept us going came from seeing how practical what we were learning in class was to

our everyday lives, and being involved in the applications of theory. This has always been my motivation for studying Engineering.

Engineering Mechanics essentially has to do with the analysis of the sturdiness of machines and their parts, frames and trusses, forces and their corresponding moments, statics, dynamics, etc., and throughout our classes we were able to touch upon each of these aspects. Many Engineers, Civil or Mechanical, specialize in one of such fields, and even go on to earn doctorates in them. Our professor, a trained Civil Engineer with a doctorate in seismic conditions and structures, would often comment about the various projects he had helped design, or about how he was missing being in Indonesia to observe the effects of the recent tsunami because of us, as well as about some of his consulting sessions. It was fascinating to realize how complex and yet how incredibly simple nature is, both to an Engineer and a layman.

But despite all the hard work, many of us (myself included) were able to confirm our passion for Engineering—our desire to invent things to move our world forward, testing our abilities and pushing further our limits while at the same time defying our preconceived notions and opinions. I am very glad I took this class; it was worth every bit the time and effort, and we all learned amidst the difficulties to say, “It’s trivial!”