

Pre-Engineering Advisory Committee Minutes

October 12, 2018

Members Present: Vince Cain, Doug Worley, Joe Greenlee, Trish Williams, and Shaun Strickland. NOC members present: Dr. Pam Stinson and Dr. Frankie Wood-Black.

Kristen Phelps and Riley Smith, students in pre-engineering, spoke about the Bell Experience Program. Kristen noted that book and work experience were combined in the program and it taught communication and people skills. Through the co-op with Bell, students could intern for an entire year, gaining experience on the job that would also help the companies. Riley added that the experience reinforces text learning and teaches students presentation skills that can be further refined by the time they graduate. Students have video chats with online instructors and go to campus twice a year for exams. Frankie Wood-Black noted that an economic development committee created the Bell Program.

As part of program updates, Frankie announced that an Intro to Engineering Class would be added in the fall. Pam asked board members what myths about engineering should be addressed in these classes. Shaun said students may be surprised to learn that wind engineers might have many days of 90% hard labor, 10% on the ground work. Joe said he thought it would be helpful for students to know what it means to be an engineer as some students go into the field just because they've been told they should since they're good at science.

Frankie indicated she would be asking engineers to come into the class to give students realistic pictures of their jobs. Doug noted that the job requires more technology, decision-making, and working with people than students may be aware of. Joe added that there is a lot of variation in mechanical positions, depending on the company they work for. Vince noted that students may not know about how many opportunities they'll work with--e.g. chemical engineers may end up doing most of their work on a computer.

Frankie summarized the packets prepared for advisory board members and asked for their comments on the current degree sheet or other things to share with students. Shaun noted that in wind energy there are few design engineers as a lot of the components are imported but students do spend a great deal of time analyzing data, including condition-based monitoring to try to be proactive in replacing elements before they fail when data indicates they will fail soon. Vince said his business also sees a lot of data analysis on vibration, oil, and corrosion. Joe added that preventative maintenance was becoming increasingly important, and Trish noted that the ability to order parts with lead time so that down time was cut could make this preventative maintenance a time and cost saver. Shaun and Trish indicated that safety training, particularly OSHA 30, would be a good component to add to curriculum.

All advisory board members indicated it would be beneficial to have students take turns attending advisory board meetings to gain experience in presentations.

Meeting adjourned at 1:15.