

Integrating Service Learning Into Engineering Communications Courses

As one of the 840 participants in the National Campus Compact program, Texas Tech University is adopting service learning as a viable learning tool for students. The College of Engineering is integrating service learning into the Industrial Engineering Communications course, helping students to develop an understanding of civic participation and how that participation augments engineering curriculum and professionalism. Service learning is easily implemented in engineering communications courses because the nature of the courses lend themselves to written and oral presentations to a professional audience, and, in the case of service learning, a community audience. In the Industrial Engineering Communications for Engineers course, students develop professional written and oral communication skills by writing technical documents, giving oral presentations on those documents, and writing and delivering professional emails. However, the team projects for the course are geared toward teaching students about civic responsibility by having them design, develop, and deliver exercises geared to public schools that demonstrate and teach elements of engineering. Not only must the engineering students have a product to deliver to the school and the public school teachers, they must assess how the semester's community involvement has impacted their basic knowledge of engineering, their understanding of engineering professionalism, and their commitment to civic responsibility. In addition to developing a tool for public school teachers, the project enhances the Texas Tech University Pre-college Engineering Program[®]. This article includes the development of the Industrial Engineering Communications Course; how the course satisfies ABET's criteria for communication, professional responsibility, and impact of engineering on society; industry's response to community service, and the positive feedback from public school teachers regarding the community projects. This article also describes the plan the College of Engineering has for developing a college wide engineering communications program.