“Global Competency for Engineering Students: Using Active Online Learning for Cross-Cultural Collaboration”

Presented by: Dr. Stephanie L. Moore
March 28, 2013
5:00-6:00 pm

While global and cultural competencies are a priority for engineering education in the United States, it is often difficult to engage a majority of students in immersive international experiences that develop these competencies. Undergraduate engineering students face packed curricula with little or no room for languages and an often unforgiving structure that puts them a year out of course sequences if they do travel for a study abroad.

When designed to create interactive, engaging learning, an online class can support joint international experiences that develop foundational global and cultural competencies without requiring the time and expenses that are often a barrier for many students. In this session, Dr. Stephanie Moore will describe the design of one such course that has been delivered for two years at the University of Virginia (UVa). In this class, engineering students from the Technische Universität (TU) in Dortmund, Germany and UVa join in live, online class sessions. The class has been specifically designed to facilitate a high degree of purposeful interaction and collaboration between the UVa and TU students. As part of the class, the students participate in a cultural orientation, work in break-out discussion groups, and must work together in mixed-country groups in a culminating simulation activity where they focus on nuclear power decisions in Germany and the US. This activity helps them see first-hand the cultural and contextual factors that affect decision making around large-scale engineering systems, as well as develop cross-cultural collaboration skills as they have to work together in class and out of class to research the topic, put together group presentations, present together, and work with other groups to make a final decision. Student performance and responses to course surveys indicate strong learning outcomes and positive reactions to the course.

This course design could be scaled up to provide more students an international collaboration opportunity without institutional reliance on study abroad as the sole means for accomplishing these professional competencies. It could also be replicated with different international partners or serve as a model for corporate training and development of employees.

This webinar is open to anyone interested, at no cost. For additional details, please consult the CGEP state website: cgep.virginia.gov. To register and attend, e-mail jgroves@virginia.edu with the subject line CGEP webinar.