A Comparison of the Development and Delivery of Two Short-Term Study-Abroad Thermal Sciences Courses

FRANK JACOBITZ, University of San Diego — Short-term study-abroad engineering courses provide an opportunity to increase the international awareness and global competency of engineering students. Two different approaches have been taken in the past years in the development and delivery of two three-week long thermal sciences courses. A senior-level elective Topics in Fluid Mechanics course was taught twice in Marseille (France) in January 2010 and 2013. A sophomore-level Introduction to Thermal Sciences course was offered in London (United Kingdom) in July 2014. Both courses were developed due to a strong student desire for engineering study-abroad courses and an effort by the home institution to internationalize its curriculum. The common goals of the two courses are an effective teaching of their respective technical content combined with a meaningful international experience. The two courses differed in their respective settings: Topics in Fluid Mechanics was taught at Aix-Marseille University and included strong interactions with local faculty and students. Introduction to Thermal Sciences, however, was taught in a cluster of seven courses offered by the home institution in London. The courses were assessed using surveys, student reflection papers, course evaluations, and instructor observations.

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