AC 2008-375: EVOLUTION AND ASSESSMENT OF AN INDUSTRY-BASED SINGLE LARGE PROJECT CAPSTONE DESIGN COURSE

Patrick Walter, Texas Christian University
Robert Bittle, Texas Christian University
Abstract

This paper describes 12 years of growth and evolution of an industry-supported single-large-project capstone design course within the engineering program at Texas Christian University. This relatively new program has graduated only 12 senior classes since 1996, and currently supports approximately 170 students. Initially, the single-project capstone course format was developed as the best utilization of faculty and space resources in delivering a meaningful project to a dozen senior students. But as the senior class sizes have grown to the 20 to 28 range and soon will exceed 30, assessment results have shown that the direct, broad, and synergistic benefits of the design experience provided to the TCU engineering students outweigh alternative capstone course formats used by larger programs. The paper highlights the course’s current operation mode, as well as the assessment process results.