

Abstract Submitted
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Redesigning Undergraduate Engineering: Incorporating Project-Based Methods within an Introductory Engineering Course BERNARD DAVID, Univ of Texas, Austin — Civil Engineering Systems, an introductory course required for all Civil Engineering majors at UT, Austin, is meant to familiarize students with the sub-disciplines of Civil Engineering in addition to fundamental concepts and habits of mind that will guide students' engagement in Civil Engineering throughout their undergraduate coursework. Historically a lecture course in which faculty representatives from the six sub-disciplines of Civil Engineering (Structural, Environmental, Transportation, Water Resources, Geotechnical, and Construction) discuss aspects of their respective fields, a semester-long design challenge is being piloted for two sections of the course in the Spring 2016 semester. Rather than attending typical lecture, pilot students work in teams to design a multi-purpose event center, engaging in increasingly complex tasks structured to give students first-hand experience in each of the Civil Engineering sub-fields. With the ultimate goal of vertically aligning upper-division Civil Engineering coursework with the project-based curriculum piloted in Civil Engineering Systems, this work presents survey and interview data regarding student attitude towards and engagement in project based design and analyzes whether students are achieving course objectives.

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