

Research in Progress Abstract - Construction Education (Pedagogical Content)

Integration of Industry Supported Curriculum Development

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The construction industry faces a challenge of disconnect between industry and education in what is taught in academia and what is desired by the industry. A lack of relevancy is often indicted for this disparity, with outdated textbooks and an outdated pulse of current needs in the industry. The goals for teacher, employer, and student as stakeholders are not only rudimentary, but analogous. Educational institutions strive to provide a quality education through which students can become a desired commodity. In exchange, students wish to be valued as a desired commodity. The curriculum disparity in construction education has been apparent for decades. The industry supported curriculum development framework in this study begins with the program advisory board comprised of 22 industry professionals. These professionals contribute to the program by means of curriculum reviews, guest speaker presentations, student mentorships, and summer internship opportunities. The instructor of record is responsible to identify three curriculum partners for every course he or she teaches in the department. Partner one, referred to as an academic partner, is an instructor who teaches at a similar academic institution within the same field of discipline. Partners two and three are industry professionals practicing within the field of study. For example the current industry partner for the code class is a city inspector. The instructor of record discusses the course Student Learning Outcomes (SLO's) with the curriculum partners. The partners, in return, provide feedback on how the SLO's should align with current industry practices. For example, the industry partner for scheduling recommended that Primavera 6 should be adopted as part of the teaching platform. The curriculum partners further contribute by being quest speakers, by helping with internship placements, and by helping to define how to best assess student learning outcomes at the end of the semester. The curriculum partners drafted an internship feedback form in support of student internships, which take place in the later part of a student's scholastic endeavors. This survey includes ten criterion containing students' performance as measured on a 1-5 scale including an additional section for comments on each category by the company who employs the student. This feedback and assessment interchange between college and industry is co-directed by the instructor of record and curriculum partners in support of required skills and competencies needed for students to be deemed effective and successful in the workforce upon graduation. The course SLO's are used to identify and remedy deficiencies of knowledge within the course content in order to support improved and ongoing curriculum development. This study can be viewed as cyclical in nature in support of ongoing curriculum development by instructors, academic, and industry partners in light of academic and industry standards.

Key Words: LEAN Construction, Curriculum Development, Advisory Board, Academic Partners