Developing Meaningful Input for Continuous Improvement in Undergraduate Engineering Education

Thomas Fronk and Robert Spall Mechanical & Aerospace Engineering Utah State University

Abstract

The continuous improvement process requires relevant feedback from well-informed participants who share the same goals espoused by the educational institution. A variety of perspectives from students, alumni, industries and faculty are necessary to ensure that educational improvements are effective. The methods for collecting continuous improvement data from students, the industrial advisory board, and the faculty at Utah State University are presented in this paper. Also, the procedures for evaluating the improvements and including all participants in the process were studied. Several issues are discussed as examples, including reducing class size, improving the capstone experience, and correlating basic skills throughout the curriculum. These examples provide evidence of the importance of closing the loop with the participants and articulating the important issues to administers and students. The success of the improved procedures presented are contrasted to previous methods and demonstrate the importance of continually improving the process.