

Engineering Design Assessment Processes and Scoring Scales for Program Improvement and Accountability

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Abstract

Assessment of student achievement in engineering design is an important part of engineering education and vital to engineering program accreditation. Systematic assessment of design is challenging yet necessary for program improvement. Programs with design distributed across the curriculum and with significant numbers of transfer students face special challenges in assessing students' design capabilities and providing meaningful feedback to improve design education.

This manuscript presents an assessment process that supports effective transfer of design credits, feedback for improvement of design education, and evaluation of program success in design education. Mid-program and end-of-program assessment strategies are included. Design scoring standards are presented to establish a basis for making performance comparisons within and among programs.

Full Text Reference

Davis, D.C., K.L. Gentili, M.S. Trevisan, and D.E. Calkins. 2002. Engineering Design Assessment Processes and Scoring Scales for Program Improvement and Accountability. *Journal of Engineering Education* (April):211-221.