

# **Innovations in Design Education Catalyzed by Outcomes-Based Accreditation**

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## **Abstract**

Outcomes-based accreditation not only supports systemic thinking about program design, but it also encourages formative assessment and student-centered instruction throughout the curriculum. An example is the three-component Design Team Readiness Assessment developed by faculty participating in the NSF-funded Transferable Integrated Design Engineering Education (TIDEE) consortium. The Design Team Readiness Assessment has been extensively pilot tested, refined, and evaluated for its reliability and validity in measuring skills required for participation on engineering design teams. Implementation of the Design Team Readiness Assessment has brought about better coordination between 4-year engineering programs and community colleges in the Pacific Northwest, promoting transfer of students and credit hours.

Based on lessons learned from the Design Team Readiness Assessment, TIDEE has begun development of an assessment and evaluation system for capstone design courses. The system is intended to clarify capstone course outcomes in light of ABET expectations, help faculty prepare students for professional practice and life-long learning, and produce reliable course and program evaluation data. The system will be applicable to all engineering disciplines, will be sufficiently flexible to meet local needs, and will support multiple implementation strategies.

## **Full Text Reference**

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