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Student Self-Assessment of ACE 10 Outcomes

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Chemical Engineering Process Design CHME 453/853
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ACE 10 Question
The ACE Outcome 10 requires students to generate a creative or scholarly product that requires broad knowledge, appropriate technical proficiency, information collection, synthesis, interpretation, presentation, and reflection.

Will the student self-assessment of the extent of attainment of outcomes in a student output improve learning and teaching?

Method of Analysis

Undergraduate Course Assessment Report
Department of Chemical and Biomolecular Engineering Spring 2012
ACE 10 Outcomes Questions
To generate a creative or scholarly product that requires:
1. Broad knowledge
2. Appropriate technical proficiency
3. Information collection
4. Synthesis
5. Interpretation
6. Presentation and reflection

Findings

Student Self-Assessment Survey Form

Improving ACE 10 Learning
Capstone design creates opportunity for the Department and for the faculty to develop an assessment tool for improving the level of integration of science, engineering, and social values for solving engineering problems.

Student Work
Product & Process Design Projects
1. In-Class Team work
2. Project Preliminary Report
3. Project Progress Report
4. Project Final Report
5. Midterm Exam
Students design and simulate physical and chemical processes that require broad range of knowledge, ability to apply mathematics, science and engineering, use of computer, synthesis, interpretation, and presentation.