Closing the Loop Assessment Activity Report Due April 21, 2017 to the Office of Academic Planning

Closing the Loop template Please see resources about closing the loop and assessing program learning outcomes at the Academic Planning website http://air.sfsu.edu/assessment/resources

Use of Assessment for Program Improvement and Planning, or, Closing the Loop Rubric – developed and used by the University Academic Assessment Advisory Committee (UAAAC) to provide feedback to programs about their use of assessment findings to improve their programs.

The quality of a program’s assessment is determined by its usefulness and application. While assessment should reveal a program’s strengths, it is equally (and perhaps even more) valuable if it can help programs identify, reflect on, and address areas where continued development and improvement are needed.

<table>
<thead>
<tr>
<th>DEVELOPED</th>
<th>DEVELOPING</th>
<th>NEEDS DEVELOPMENT</th>
<th>ABSENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment clearly drives program planning and curriculum development</td>
<td>Assessment results directed toward program planning</td>
<td>Assessment describes the existing program</td>
<td>No use of assessment evident</td>
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<tr>
<td>Program improvements result from assessment</td>
<td>Program’s curriculum has changed (and changes) as a result of assessment</td>
<td>Assessment used to defend status quo</td>
<td></td>
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<tr>
<td>Evidence of program-level reflection on assessment results</td>
<td>Assessment report includes reflection on larger lessons learned from assessment</td>
<td>Assessment is primarily procedural and needs reflection</td>
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Department: School of Engineering

College: College of Science and Engineering

1. Please list the program learning goal that was assessed in your assessment findings report or other assessment activity.

The program learning goals for the School of Engineering are aligned with ABET’s student outcomes, as documented in ABET Criterion 3. They are as follows:

(a) an ability to apply knowledge of mathematics, science, and engineering;
(b) an ability to design and conduct experiments, as well as to analyze and interpret data;
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
(d) an ability to function on multidisciplinary teams;
(e) an ability to identify, formulate, and solve engineering problems;
(f) an understanding of professional and ethical responsibility;
(g) an ability to communicate effectively;
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
(i) a recognition of the need for, and an ability to engage in life-long learning;
(j) a knowledge of contemporary issues;
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

In AY 2016-17, all of these student outcomes were assessed by evaluating the results of course-based assessment forms collected in prior academic years.

2. What was the finding of that assessment?

Two primary deficiencies were found: (1) a significant number of students do not perform as well as desired in terms of effective communication[outcome (g)], and (2) there were some significant issues with regards to effective teamwork in group laboratory and senior design projects [outcome (d)].

3. What was the process through which faculty considered a response to the findings of the assessment (department meeting, department retreat, through a department assessment or curriculum committee)?

The responses to these findings were addressed by the School of Engineering’s Outcomes Assessment Committee (OAC)

4. What changes have you made or are you planning to make in order to address the findings?

We have implemented specific assignments and grading policies in an attempt to address these issues. For example, in ENGR 302, students have been required to turn in a draft laboratory report, that is reviewed by the faculty, and then revised before final submittal. Team participation is now evaluated by student peer evaluations in certain courses.

5. What assessment activities do you plan to undertake next academic year?
   - Will you assess a different program learning goal (assessment finding report)?
   - Will you address another finding from the assessment of the same program learning goal (closing the loop report)?
   - Is it time to revisit program learning goals (program learning goals report)?

Next academic year we will be visited by an ABET accreditation team and under our ABET accreditation review (in Fall 2017). Future assessment activities will be in large part guided by the feedback provided by ABET.