ABET meeting minutes
October 11, 2007
Special group on Electrical Engineering and Computer Engineering weakness resolution

In attendance: Eamonn Keogh, Amit Roy-Chowdhury, Sasha Korotkov, Victor Hill, Mitch Boretz, Roger Lake, Tom Payne, Mitch Boretz, Melanie Carlson

PURPOSE

The ABET Engineering Accreditation Commission (EAC) final statement dated August 13, 2007, identified two weaknesses in Computer Engineering and one weakness in Electrical Engineering. The programs are accredited through September 30, 2009. If we can document to ABET's satisfaction that these weaknesses have been addressed, accreditation will be extended to September 30, 2013 (next general review would be in 2012).

The Computer Engineering weaknesses are:

-- Criterion 2, Program Educational Objectives. EAC found that this program was weak in that the objectives were not "broad statements that describe the accomplishments of computer engineering graduates and their achievements." Additionally, it was not clear to the reviewers that these objectives were reached based on the needs of program constituents. Since the objectives were not defined based on the needs of program constituents, it is not clear how the results are used to improve program outcomes and for graduates to attain the objectives.

In our due process response (February 2007), we indicated that we have proposed a new set of program educational objectives that are focused on early career accomplishments, and we have instituted a process for involvement of constituents in refining/approving the objectives. We indicated that we would complete the educational objective review, refinement, and approval process by May 2007. *Our 2008 documentation indicating resolution of this weakness is expected to show evidence documenting the implementation of the new process.*

-- Criterion 3, Program Outcomes and Assessment. EAC found a weakness in our processes to produce intended outcomes, to assess student success in achieving the outcomes, and to document the results of the assessment. There must be evidence that the results of this assessment processa re applied to the further development of the program. *In the 2008 documentation indicating resolution of this weakness, EAC will be looking for three things: (1) evidence that documents the relation of specific course content and grades to program outcomes, (2) evidence documenting implementation of the additional assessment tools identified in our due-process response (February 2007), and (3) evidence that the results of assessments have been used to improve the program.*

The Electrical Engineering weakness is on Criterion 2, Program Educational Objectives. EAC acknowledges that we have a process for consulting with constituencies and periodically evaluating them. However, it was not clears that this process is tied to feedback from our defined constituencies or what the time period is for re-evaluation of these objectives. Some objectives appear difficult to measure, and some are similar to outcomes. While evaluation has been done, it

isn otyet clear that this is an ongoing process, and that the loop is being closed to use the evaluation results in program improvement. In our February 2008 due-process response, we described activity to define a new set of educational objectives and indicated that we would bring them to our constituents in May 2007. *In our 2008 documentation that the weakness is resolved, EAC will be looking for evidence documenting implementation of the new process.*

DISCUSSION AND PLAN OF ACTION

1. The Electrical Engineering weakness can be resolved by documenting that we have done what we said we would do. The objectives have been rewritten and discussed with the EE Board of Advisors in spring 2007. There is a need to consult with alumni (see NEEDS below), and to publish the final objectives in the next UCR Course Catalog and on the EE web site. We also will need to indicate the time frame in which consultations and modifications to the objectives will occur.

2. The Computer Engineering weaknesses are interesting in that the program is based on the operations of the Electrical Engineering Department and the Computer Science and Engineering Department, and the processes for both of those programs were reviewed and passed. Therefore, we will do two things: (1) modify some syllabi and processes in Computer Science and Engineering to match those of Electrical Engineering, and (2) point to the changes made and accepted in Electrical Engineering.

3. We must be sure that the Computer Engineering 2008 response directly, explicitly, and comprehensively addresses all three issues that EAC identified (see above).

4. Eamonn Keogh will take the lead in preparing the Computer Engineering materials. Tom Payne will assist.

5. Amit Roy-Chowdhury will be responsible for the Electrical Engineering materials.

6. Roger Lake will provide copies of his February 2007 due process response to Eamonn and Amit. Melanie also will be introduced to where all EE ABET documentation is archived.

7. The next meeting will be in approximately two weeks (week of October 22).

8. Each department should re-examine its list of constituents. For example, some list the general public as a constituent. It is difficult to consult with the public in a meaningful way in the context of setting program objectives.

NEEDS

We need to consult with alumni on our program objectives. This can be done through our annual alumni survey (the term is used advisedly, since the survey has been conducted only once, 19 months ago). Tom also suggests focus groups of alumni who still are in Southern California – a pizza-and-beer meeting to talk about how we prepared them, how their careers are going, and

what we should do in our curricula to prepare our students for the first five years of their careers after the bachelor's degree.

The Dean's Office needs to be more engaged and provide more leadership. Mitch suggested that Ravi should attend all future meetings of the working group on the EE/CE weakness resolution meetings. Ravi also should convene regular ABET meetings to assure that our processes are working and being documented.

Tom suggests that Ravi's group, including Student Affairs, can be useful in engaging with alumni on establishing and reviewing program objectives.

SCHEDULE

Next meeting will be set for the week of October 22.

BCOE must submit a request to ABET by January 31, 2008, to initiate a reaccreditation report evaluation.

We must submit a report describing the actions taken to correct weaknesses identified in each program by July 1, 2008.

There will be no new site visit.