

CALIFORNIA STATE UNIVERSITY, EAST BAY

Designation Code: 2004-05 CAPR 7

Date Submitted: April 8, 2005

TO: The Academic Senate

FROM: Committee on Academic Planning & Review (CAPR)

SUBJECT: Five-Year Program Review for the BS in Engineering (Outside Accredited Program)

PURPOSE: For Action by the Academic Senate

ACTION REQUESTED: Acceptance of the Five-Year Program Review of the Engineering Program and approval of the continuation of the program without modification

BACKGROUND

INFORMATION: The Engineering Department offers the Bachelor of Science Degree in Industrial Engineering. The program is newly accredited (August 2004) by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). On 6 May 2004 and again on 21 October 2004, the Chair of Engineering, Professor Saied Motavalli, and the Dean of the College of Science, Michael Leung, met with CAPR members. At these meetings the review process, the submitted report (in accordance with CAPR requirements for outside accredited programs), and the successful accreditation status of the Engineering program were discussed. This final draft of the document was approved unanimously by CAPR at its meeting on 7 April 2005.

The Engineering program has recently hired a fifth tenure-track faculty member. While student enrollment in the program is still small, the program is steadily growing. The Department submitted a new program request for the placement of an MS degree in Engineering on the University Master Plan (04-05 CAPR 4 MS in Engineering Management, approved by the Senate on 11 January 2005). Two certificate programs have also been approved (03-04 CIC16 and 03-04 CIC17, approved by the Senate on 4 May 2004). The department anticipates that these programs will increase enrollments in both the College of Science and in related programs in the College of Business and Economics.

CAPR believes that some laboratory development in the Engineering degree program is required in the areas of human factors and manufacturing. Both of these laboratory experiences could be designed cooperatively with the Department of Psychology, the College of Science, and the College of Business and Economics.

As a result of suggestions from the ABET accreditation review, the Department of Engineering has strengthened advising procedures. The department has used the results from assessment outcomes to revise course content and modify curriculum. In an attempt to measure student performance outcomes, CAPR has been investigating the use of a proposed guideline suggested by the WASC Academic Review Campus Outcome Team (COT) called "Student Learning Outcomes Rubric." When this proposed instrument was used by CAPR for this review, the Engineering Program scored a total of 58 out of 60 possible points, which CAPR found to be highly commendable.

The BS degree in Engineering requires 186-quarter units. This number reflects the lowest number that will satisfy both the ABET accreditation requirements in engineering and the University General Education requirements.

A copy of the engineering self-study submitted to ABET was made available to CAPR. The full report is maintained in the Senate Office along with the required abbreviated report to CAPR.

CAPR RECOMMENDATION:

CAPR recommends the continuation of the Engineering Bachelor of Science degree program without modification, with a recommendation that the University support the Department's needs related to increased student enrollment. The next CAPR review will be at the end of the ABET accreditation cycle.