



ANNUAL PROGRAM REPORT

College	Science
Department	Engineering
Program	M.S. Engineering Management
Reporting for Academic Year	2017-2018
Last 5-Year Review	2012
Next 5-Year Review	2018-19
Department Chair	Saeid Motavalli
Date Submitted	9/14/2017

SELF-STUDY (suggested length of 1-3 pages)

A. Five-Year Review Planning Goals

1. *One of the goals indicated in our previous report was to offer more elective courses. This goal has not been achieved as the number of faculty supporting this program has not changed since 2004. The number of students however is much higher. In the transformed curriculum for the semester offering we are proposing several changes including offering all program requirements in engineering. This will alleviate the need for courses from the College of Business and Economics. Also as part of the program transformation, we anticipate offering more elective courses.*
2. *Faculty: The faculty that support this program are also supporting the industrial engineering program. The faculty are; Helen Zong, Farnaz Ganjeizadeh and David Bowen. The program needs additional faculty.*
3. *Research: The Engineering Management faculty are active in research and are being successful in securing funds for their research. The faculty plan is to aggressively pursue funding opportunities, specifically in areas related to the advancement of engineering education.*
4. *Equipment: Through A2E2 annual funding and the normal refresh cycle of computers by IT we are keeping the Engineering Management Laboratories current.*
5. *Enrollment: Student enrollment in Engineering Management program has been increasing.*

B. Progress Toward Five-Year Review Planning Goals

1. *Successfully transformed the curriculum to a semester-based program.*
2. *We are planning to request one tenure track position for the industrial engineering and engineering management program as suggested in the findings of our last accreditation team report for Industrial Engineering.*

3. *The remodeling of materials lab SSC 247 has been completed and it is used as lab/active learning classroom.*

4. *Enrollment in Engineering Management is over 100 students and considered a large MS program as compared to other graduate programs on-campus.*

5. *The transformed program credit requirement is in line with the quarter system requirements and is being finalized during the catalog review.*

B. Program Changes and Needs

Report on changes and emerging needs not already discussed above. Include any changes related to SB1440, significant events which have occurred or are imminent, program demand projections, notable changes in resources, retirements/new hires, curricular changes, honors received, etc., and their implications for attaining program goals. Organize your discussion using the following subheadings.

Overview: The Engineering Management program started in the year 2003 and has been steadily growing with the enrollment stabilizing at over 100 students. Since 2004 we have not hired any faculty for this program. The faculty of Industrial Engineering also serve the Engineering Management program. We are planning to request a tenure-track position this year who will serve both programs.

Curriculum: The transformed curriculum is design to include more active learning exercises and includes courses and material that are in line with the employment trends in engineering management.

Students: Demand for Engineering Management graduates are relatively strong, especially for domestic students.

Faculty: Since 2004 we have had 3 faculty dedicated to the Engineering Management and Industrial Engineering programs. These include Drs. Helen Zong, David Bowen and Farnaz Ganjiezadeh.

Staff: We have one full time staff for the School of Engineering, Mrs. Paula Trujillo and a laboratory technician, Mr. Brandon Xia.

Resources: Upgrade software at the engineering computer laboratory (VBT 223)

Assessment: An extensive assessment process is in place for the Engineering Management program. Sample results are provided in the following section.

SUMMARY OF ASSESSMENT (suggested length of 1-2 pages)

Program Learning Outcomes (PLOs) and their relation to ILOs

Students graduating with a M.S. Engineering Management degree from Cal State East Bay will be able to:	I.L.O Alignment
a Develop advanced analytical skills in optimization, planning and control, and other quantitative management techniques	1, 6
b Effectively manage teams of multi-disciplinary and multi-cultural professionals .	3, 4
c Understand the impact of engineering and management decisions in a global, economic, environmental, and societal context	5
d Have the ability to effectively and persuasively communicate	2
e Recognize the need for, and have an ability to engage in, life-long learning	6

Program Learning Outcome(S) Assessed

(1) Year 4-2016- 2017		(2)
1. Which SLO(s) to assess	SLO d - Have the ability to effectively and persuasively communicate	
2. Assessment indicators	Team project	
3. Sample (courses/# of students)	ENGR 6200	
4. Time (which quarter(s))	Winter 2017	
5. Responsible person(s)	Prof Ganjeizadeh	
6. Ways of reporting (how, to who)	Orap [resentation scores results will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.	
7. Ways of closing the loop	Interaction between chair, faculty and industry advisory board	

Summary: This course involves hands on lab activities related to application of theory in solving engineering problems. Alumni have evaluated the course material as valuable in their

professional career. The performance indicators for assessment of this outcome and the rubric used are as follows. The rubric used for assessing communications skills is as follows:

Project topic originality	5%
Methodology	8%
Application	5%
Written report	20%
Team Presentation	20%
Team member evaluation	5%
Peer evaluation	2%
Clarity of Presentation	10%
Presentation material	10%
Team transactions	5%
Individual presentation ability	10%

According to this rubric 70% of the grade is based on students' communication skills. For the 25 students participating in this evaluation the average grade was 85% with the lowest grade of 70% and the highest of 95%. Majority of students achieved the communications skill outcome.

Assessment Plans for Next Year

1. Which SLO(s) to assess	SLO e - Recognize the need for, and have an ability to engage in, life-long learning
2. Assessment indicators	Capstone project
3. Sample (courses/# of students)	ENGR 6899
4. Time (which quarter(s))	Spring 2018
5. Responsible person(s)	All faculty supervising a Master's Project during 2017-2018
6. Ways of reporting (how, to who)	The results will be reported by faculty to the department chair.
7. Ways of closing the loop	Interaction between chair, faculty and industrial advisory board

DISCUSSION OF PROGRAM DATA & RESOURCE REQUESTS

Each program should provide a one-page discussion of the program data available through CAPR. This discussion should include an analysis of trends and areas of concern. Programs should also include in this discussion requests for additional resources including space and tenure-track hires. Resource requests must be supported by reference to CAPR data only. Requests for tenure-track hires should indicate the area and rank that the program is requesting to hire. If a program is not requesting resources in that year, indicate that no resources are requested.

Discussion of Trends & Reflections

Notable Trends:

Summarize and discuss any notable trends occurring in your program over the past 3-5 years based on program statistics (1-2 paragraphs). You may include 1-2 pages of supplemental information as appendices to this report (e.g., graphs and tables).

Reflections on Trends and Program Statistics:

Provide your reflections on the trends discussed above and statistics and supplemental information presented in this report.

Request for Resources *(suggested length of 1 page)*

Upkeep of the laboratory software and hardware, access to large computer lab/classes for some of the courses.

Request for Tenure-Track Hires:

We have not hired any faculty since 2004. The program has grown substantially since and the need for a tenure-track position is essential to program success.

Request for Other Resources