



**COMMITTEE ON ACADEMIC PLANNING AND REVIEW
ANNUAL PROGRAM REPORT**

College	CoS
Department	Engineering
Program Unit	Engineering Mangement
Reporting for Academic Year	2015-2016
Department Chair	Saeid Motavalli
Date Submitted	7/18/2016

1. SELF-STUDY (about 1 page)

A. Five-year Review Planning Goals

The Engineering Department offers two undergraduate engineering degree programs, Computer Engineering and Industrial Engineering. We also offer a graduate degree program in Engineering Management. The Industrial Engineering degree program is accredited by the Accreditation Board for Engineering and Technology (ABET). Computer Engineering is the newest engineering major which we started in 2007. We had our initial accreditation visit for Computer Engineering and reaccreditation of Industrial Engineering programs in October 2016. We expect to receive the final accreditation report by August 2016.

B. Five-year Review Planning Goals Progress

1. Continue the assessment and evaluation process for continuous improvement of the programs.
3. Enrollment in Engineering Management program has increased steadily.
4. Our graduate programs in Engineering Management and Construction Management are the fastest growing programs in Engineering and are considered as large graduate programs on campus.

C. Program Changes and Needs

We added a Capstone course, ENGR 6800 Applied Research in Engineering Management to the curriculum. This was done to reduce the backlog of Engineering Management students who were in need of individual faculty advisor for their MS projects. This change will improve on-time graduation rate.

2. SUMMARY OF ASSESSMENT (about 1 page)

A. Program Student Learning Outcomes

The Student Learning Outcomes :

- a Develop advanced analytical skills in optimization, planning and control, and other quantitative management techniques
- b Effectively manage teams of multi-disciplinary and multi-cultural professionals .
- c Understand the impact of engineering and management decisions in a global, economic, environmental, and societal context
- d Have the ability to effectively and persuasively communicate
- e Recognize the need for, and have an ability to engage in, life-long learning

B. Program Student Learning Outcome(s) Assessed

SLO c – “Understand the impact of engineering and management decisions in a global, economic, environmental, and societal context” was assessed

C. Summary of Assessment Process

The ability to understand the impact of engineering and management decisions in a global, economic, environmental, and societal context was assessed by student performance on the following midterm exam question:

4 (a) Describe 5 specific product and/or process design CHOICES that would promote a sustainable or 'green' design for your designated object, one choice related to each life cycle phase.

b) For each design choice, describe how that choice is more sustainable than an alternative choice that could have been made (i.e., for each phase compare your design choice to an alternative that is not as sustainable, and describe how your design is more sustainable in comparison).

D. Summary of Assessment Results

Outcome (c): The ability to understand the impact of engineering and management decisions in a global, economic, environmental, and societal context

Indicator: Question 4 of the midterm exam was answered by 32 students. The average score was 71.2%.

Evaluation: Most students performed well on the question, but a few got close to no points. Since this was the last question on the exam, some students appear to have run out of time before being able to answer correctly.

3. STATISTICAL DATA (about 1 page)

Engineering					
	Fall Quarter				
	2011	2012	2013	2014	2015
A. Students Headcount					
1. Undergraduate	172	217	223	226	233
2. Postbaccalaureate	1	0	0	0	0
3. Graduate	97	70	86	150	161
4. Total Number of Majors	270	287	309	376	394
College Years					
	10-11	11-12	12-13	13-14	14-15
B. Degrees Awarded					
1. Undergraduate	11	12	19	24	38
2. Graduate	18	30	32	32	34
3. Total	29	42	51	56	72
Fall Quarter					
	2011	2012	2013	2014	2015
C. Faculty					
Tenured/Track Headcount					
1. Full-Time	5	6	7	8	10
2. Part-Time	0	0	0	0	0
3a. Total Tenure Track	5	6	7	8	10
3b. % Tenure Track	83.3%	85.7%	77.8%	88.9%	90.9%
Lecturer Headcount					
4. Full-Time	0	0	0	0	0
5. Part-Time	1	1	2	1	1
6a. Total Non-Tenure Track	1	1	2	1	1
6b. % Non-Tenure Track	16.7%	14.3%	22.2%	11.1%	9.1%
7. Grand Total All Faculty	6	7	9	9	11
Instructional FTE Faculty (FTEF)					
8. Tenured/Track FTEF	3.6	6.0	5.2	6.7	8.0
9. Lecturer FTEF	0.4	0.5	0.6	0.4	0.8
10. Total Instructional FTEF	4.1	6.5	5.8	7.1	8.8

Lecturer Teaching					
11a. FTES Taught by Tenure/Track	80.5	82.7	83.7	107.9	130.7
11b. % of FTES Taught by Tenure/Track	78.4%	87.8%	77.7%	81.6%	83.2%
12a. FTES Taught by Lecturer	22.1	11.5	24.0	24.3	26.4
12b. % of FTES Taught by Lecturer	21.6%	12.2%	22.3%	18.4%	16.8%
13. Total FTES taught	102.7	94.1	107.7	132.2	157.1
14. Total SCU taught	1540.0	1412.0	1615.0	1983.0	2357.0
D. Student Faculty Ratios					
1. Tenured/Track	22.1	13.7	16.2	16.1	16.4
2. Lecturer	50.4	23.8	39.3	60.5	33.0
3. SFR By Level (All Faculty)	25.2	14.5	18.6	18.6	17.9
4. Lower Division	25.8	15.9	16.5	14.0	17.1
5. Upper Division	23.4	14.2	17.4	15.2	14.5
6. Graduate	27.0	14.4	21.9	28.5	26.1
E. Section Size					
1. Number of Sections Offered	21.8	26.6	28.8	34.0	38.0
2. Average Section Size	25.1	20.6	21.6	17.8	25.2
3. Average Section Size for LD	33.3	27.0	23.8	26.0	27.3
4. Average Section Size for UD	15.5	18.5	19.1	14.3	19.7
5. Average Section Size for GD	42.3	19.4	24.5	21.8	41.4
6. LD Section taught by Tenured/Track	3	4	5	5	8
7. UD Section taught by Tenured/Track	12	12	16	20	17
8. GD Section taught by Tenured/Track	9	12	10	8	10
9. LD Section taught by Lecturer	0	0	0	0	0
10. UD Section taught by Lecturer	3	2	3	2	2
11. GD Section taught by Lecturer	1	2	1	2	2

Source and definitions available at:

<http://www.csueastbay.edu/ira/apr/summary/definitions.pdf>

Headcount Enrollment	Fall Quarter				
	2011	2012	2013	2014	2015
Computer Engineering					
1. Undergraduate	0	19	58	102	129
2. Postbaccalaureate	0	0	0	0	0
3. Graduate	0	0	0	0	0
4. Total Number of Majors	0	19	58	102	129
Engineering					
1. Undergraduate	155	158	109	54	24
2. Postbaccalaureate	1	0	0	0	0
3. Graduate	0	0	0	0	0
4. Total Number of Majors	156	158	109	54	24
Engineering Management					
1. Undergraduate	0	0	0	0	0
2. Postbaccalaureate	0	0	0	0	0
3. Graduate	40	27	42	79	87
4. Total Number of Majors	40	27	42	79	87

Construction Management					
1. Undergraduate	17	40	56	70	80
2. Postbaccalaureate	0	0	0	0	0
3. Graduate	57	43	44	71	74
4. Total Number of Majors	74	83	100	141	154
	College Years				
Degrees Awarded	10-11	11-12	12-13	13-14	14-15
Engineering					
1. Undergraduate	11	12	16	18	18
2. Graduate	0	0	0	0	0
3. Total Number of Majors	11	12	16	18	18
Engineering Management					
1. Undergraduate	0	0	0	0	0
2. Graduate	17	13	17	12	19
3. Total Number of Majors	17	13	17	12	19
Computer Engineering					
1. Undergraduate	0	0	1	1	7
2. Graduate	0	0	0	0	0
3. Total Number of Majors	0	0	1	1	7
Construction Management					
1. Undergraduate	0	0	2	5	13
2. Graduate	1	17	15	20	15
3. Total Number of Majors	1	17	17	25	28

D. Student Faculty Ratios	Engineering ENGR				
1. Tenured/Track	23.7	14.1	17.3	18.5	22.8
2. Lecturer	48.1	24.9	83.1	11.9	30.7
3. SFR By Level (All Faculty)	25.2	14.6	18.9	18.3	23.3
4. Lower Division	25.8	15.9	16.5	14.0	17.1
5. Upper Division	27.4	16.9	17.7	.	.
6. Graduate	20.4	10.5	25.9	22.5	29.2
E. Section Size					
1. Number of Sections Offered	17.8	20.6	18.8	9.5	14.4
2. SCU taught	1060.0	932.0	911.0	519.0	692.0
3. Average Section Size	21.5	19.5	23.3	23.8	32.0
4. Average Section Size for LD	33.3	27.0	23.8	26.0	27.3
5. Average Section Size for UD	16.4	21.5	21.0	0.0	0.0
6. Average Section Size for GD	22.0	9.3	30.0	20.0	46.0
7. LD Section taught by Tenured/Track	3	4	5	5	8
8. UD Section taught by Tenured/Track	11	10	12	0	0
9. GD Section taught by Tenured/Track	7	9	5	4	6
10. LD Section taught by Lecturer	0	0	0	0	0
11. UD Section taught by Lecturer	3	1	1	0	0
12. GD Section taught by Lecturer	0	1	0	1	1
D. Student Faculty Ratios	Construction Management (CMGT)				
1. Tenured/Track	18.1	12.9	14.4	20.0	16.2
2. Lecturer	51.9	23.0	33.0	66.9	34.5

3. SFR By Level (All Faculty)	25.3	14.1	18.3	25.6	18.9
4. Lower Division	.	.	.	.	.
5. Upper Division	6.6	8.4	17.1	19.2	15.8
6. Graduate	32.7	18.6	19.7	34.5	23.9
E. Section Size					
1. Number of Sections Offered	4.0	6.0	10.0	10.0	11.0
2. SCU taught	480.0	480.0	704.0	860.0	1004.0
3. Average Section Size	38.0	23.5	17.3	19.3	30.1
4. Average Section Size for LD	0.0	0.0	0.0	0.0	0.0
5. Average Section Size for UD	9.0	12.5	16.7	16.7	25.2
6. Average Section Size for GD	52.5	34.5	19.0	27.0	38.3
7. LD Section taught by Tenured/Track	0	0	0	0	0
8. UD Section taught by Tenured/Track	1	2	4	6	5
9. GD Section taught by Tenured/Track	2	3	5	4	4
10. LD Section taught by Lecturer	0	0	0	0	0
11. UD Section taught by Lecturer	0	1	2	1	1
12. GD Section taught by Lecturer	1	1	1	1	1
D. Student Faculty Ratios Computer Engineering (CMPE)					
1. Tenured/Track	.	.	.	3.81	4.04
2. Lecturer	.	.	.	.	.
3. SFR By Level (All Faculty)	.	.	.	3.81	4.04
4. Lower Division	.	.	.	.	.
5. Upper Division	.	.	.	3.81	4.04
6. Graduate	.	.	.	.	.
E. Section Size					
1. Number of Sections Offered	0	0	0	4	4
2. SCU taught	0	0	0	60	72
3. Average Section Size	0	0	0	7.5	9
4. Average Section Size for LD	0	0	0	0	0
5. Average Section Size for UD	0	0	0	7.5	9
6. Average Section Size for GD	0	0	0	0	0
7. LD Section taught by Tenured/Track	0	0	0	0	0
8. UD Section taught by Tenured/Track	0	0	0	4	4
9. GD Section taught by Tenured/Track	0	0	0	0	0
10. LD Section taught by Lecturer	0	0	0	0	0
11. UD Section taught by Lecturer	0	0	0	0	0
12. GD Section taught by Lecturer	0	0	0	0	0
D. Student Faculty Ratios Industrial Engineering (INDE)					
1. Tenured/Track	.	.	.	16.42	18.21
2. Lecturer	.	.	.	83.58	29.63
3. SFR By Level (All Faculty)	.	.	.	18.74	19.06
4. Lower Division	.	.	.	.	.
5. Upper Division	.	.	.	18.74	19.06
6. Graduate	.	.	.	.	.
E. Section Size					
1. Number of Sections Offered	0	0	0	10.5	8.6
2. SCU taught	0	0	0	544	589
3. Average Section Size	0	0	0	16.6	21.6
4. Average Section Size for LD	0	0	0	0	0

5. Average Section Size for UD	0	0	0	16.6	21.6
6. Average Section Size for GD	0	0	0	0	0
7. LD Section taught by Tenured/Track	0	0	0	0	0
8. UD Section taught by Tenured/Track	0	0	0	10	8
9. GD Section taught by Tenured/Track	0	0	0	0	0
10. LD Section taught by Lecturer	0	0	0	0	0
11. UD Section taught by Lecturer	0	0	0	1	1
12. GD Section taught by Lecturer	0	0	0	0	0

Planning and Institutional Research produce program statistics annually in standard format. These statistics will be attached to the Annual Report of the Program Unit. This statistical document is expected to be approximately one page long and will contain the same data as required for the five-year review including student demographics of majors, student level of majors (e.g. Juniors, Seniors), faculty and academic allocation, and course data.

California State University, East Bay

APR Summary Data

Fall 2009 -
2013

Engineering					
	Fall Quarter				
	2009	2010	2011	2012	2013
A. Students Headcount					
1. Undergraduate	152	149	172	217	223
2. Postbaccalaureate	4	3	1	0	0
3. Graduate	85	92	97	70	86
4. Total Number of Majors	241	244	270	287	309
College Years					
	08-09	09-10	10-11	11-12	12-13
B. Degrees Awarded					
1. Undergraduate	13	7	11	12	19
2. Graduate	5	23	18	30	32
3. Total	18	30	29	42	51
Fall Quarter					
	2009	2010	2011	2012	2013
C. Faculty					
Tenured/Track Headcount					
1. Full-Time	4	5	5	6	7
2. Part-Time	0	0	0	0	0
3a. Total Tenure Track	4	5	5	6	7
3b. % Tenure Track	100.0%	100.0%	83.3%	85.7%	77.8%
Lecturer Headcount					
4. Full-Time	0	0	0	0	0
5. Part-Time	0	0	1	1	2
6a. Total Non-Tenure Track	0	0	1	1	2
6b. % Non-Tenure Track	0.0%	0.0%	16.7%	14.3%	22.2%
7. Grand Total All Faculty	4	5	6	7	9
Instructional FTE Faculty (FTEF)					
8. Tenured/Track FTEF	2.3	4.4	3.6	6.0	5.2
9. Lecturer FTEF	1.2	0.2	0.4	0.5	0.6
10. Total Instructional FTEF	3.6	4.6	4.1	6.5	5.8
Lecturer Teaching					
11a. FTES Taught by Tenure/Track	56.7	84.3	80.5	82.7	83.7
11b. % of FTES Taught by Tenure/Track	70.0%	91.3%	78.4%	87.8%	77.7%
12a. FTES Taught by Lecturer	24.3	8.0	22.1	11.5	24.0
12b. % of FTES Taught by Lecturer	30.0%	8.7%	21.6%	12.2%	22.3%
13. Total FTES taught	80.9	92.3	102.7	94.1	107.7

14. Total SCU taught	1214.0	1384.0	1540.0	1412.0	1615.0
D. Student Faculty Ratios					
1. Tenured/Track	24.3	19.2	22.1	13.7	16.2
2. Lecturer	19.8	38.1	50.4	23.8	39.3
3. SFR By Level (All Faculty)	22.7	20.0	25.2	14.5	18.6
4. Lower Division	17.5	11.9	25.8	15.9	16.5
5. Upper Division	29.3	21.8	23.4	14.2	17.4
6. Graduate	19.1	22.5	27.0	14.4	21.9
E. Section Size					
1. Number of Sections Offered	15.7	21.9	21.8	26.6	28.8
2. Average Section Size	22.9	20.0	25.1	20.6	21.6
3. Average Section Size for LD	21.0	21.5	33.3	27.0	23.8
4. Average Section Size for UD	23.5	13.8	15.5	18.5	19.1
5. Average Section Size for GD	22.8	26.2	42.3	19.4	24.5
6. LD Section taught by Tenured/Track	1	4	3	4	5
7. UD Section taught by Tenured/Track	7	12	12	12	16
8. GD Section taught by Tenured/Track	7	9	9	12	10