COMMITTEE ON ACADEMIC PLANNING AND REVIEW
ANNUAL PROGRAM REPORT

College	CSCI
Department	Engineering
Program Unit	Computer Engineering, Engineering Management and Industrial Engineering
Reporting for Academic Year	2013-2014
Department Chair	Saeid Motavalli
Date Submitted	10/14/2014

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 one 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 are planning to apply for ABET accreditation of the Computer Engineering program during the 2015-16 accreditation cycle. This schedule would match the next accreditation evaluation of our Industrial Engineering program.

B. Five-year Review Planning Goals Progress

1. Continue the assessment and evaluation process for continuous improvement of the programs.
2. A search is underway for a computer engineering faculty. This will increase the Computer Engineering faculty to 3, which is the minimum requirement for accreditation.
3. Apply and obtain accreditation for computer engineering program in 2015-16.
4. Preparation of self-study reports for industrial and computer engineering programs are underway.
5. Enrollments in engineering programs are steadily increasing.
6. Engineering Management is the fastest growing program in the Department and considered a as a large graduate program on campus.

C. Program Changes and Needs

With a successful search that is underway we will have a total of 7 Engineering faculty.

Curriculum has been modifies to responds to data collected through assessment.

The name change of the Department of Engineering to School of Engineering has been approved. This change will create the appropriate structure for accreditation of various majors under engineering.

Course prefixes have been modified to reflect independent majors in C.E. and I.E.

A proposal for development of a Civil Engineering program has been developed and we hope that it goes through the approval process this year.

2. SUMMARY OF ASSESSMENT (about 1 page)

A. Program Student Learning Outcomes

B. Program Student Learning Outcome(s) Assessed

For engineering we are assessing every program outcome on a yearly base. We have developed a schedule for yearly assessment of these outcomes

C. Summary of Assessment Process

The assessment activities are as follows:

The courses have been linked to outcomes.

An assessment report by the faculty teaching each course is generated.

Annual surveys of graduating seniors, employers, and alumni to assure that our curriculum adequately prepares students for employment have been conducted.

We summarize all these reports and present the summery to our Industry Advisory Board that regularly meets in June of each year. The board members suggest program modifications based on the results of assessment. The board includes faculty, student representatives, alumni representatives and industry members.

We have used the data for continuous improvement.

D. Summary of Assessment Results

Faculty Assessment Data Table

Letters	Student Outcomes	2010-2011	2011-2012	2012-2013
A	Apply Math/Science Engineering Knowledge	74%	75%	72%
B	Design/Conduct Experiments	80%	90%	95%
C	Ability to Design Systems	78%	83%	83%
D	Function on multidisciplinary teams	76%	78%	79%
E	Solve Engineering Problems	74%	86%	81%
F	Understand Professional/ethical responsibilities	78%	78%	84%
G	Ability to communicate effectively	82%	83%	88%
H	Understand global/societal context	75%	75%	91%
I	Recognize life-long learning	83%	83%	81%
J	Know contemporary issues	85%	82%	79%
K	An ability to use modern engineering tools	83%	87%	82%
IE	Industrial Engineering Criteria	91%	93%	95%

This table shows the results of direct in course assessment of the IE program. We have results for Computer Engineering and Engineering Management also.

A sample of program changes implemented by faculty:

Engineering Faculty Recommended Changes

Courses	2010-2011	2011-2012	2012-2013
1011	Limit Class Size.		None
1420	Re-organize course into rapid/concise instructions. Revise labs to bring 3-D Modeling more quickly.		
2060		Allocate 10% course credit for class attendance	
3101	None		
3140		Continue Introducing Industrial Applications to classroom learning.	Continue Introducing Industrial Applications to classroom learning.
3190	Early Quiz or Schedule Midterm earlier to allow students to gauge level of performance earlier.	None	None
3841			None
4100			Invite Guest Speakers in MRP Field to familiarize application in MFG.
4200		Continue collaborating with NUMMI Inc. to introduce industrial applications to classroom learning	Work with ProModel Supports & CSUEB IT to eliminate functional issues & license key issues. Separate BS/MS students for smaller lab sessions.
4280			Increase use of current events for discussion & exams.
4350	None		
4430	Continue collaborating with UPS/Local companies to introduce industrial applications to classroom learning	Continue collaborating with UPS/Local companies to introduce industrial applications to classroom learning	
4610/4620	None	None	None

3. STATISTICAL DATA (about 1 page)

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				
B. Degrees Awarded	**08-09**	**09-10**	**10-11**	**11-12**	**12-13**
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