



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

College	CoS
Department	Engineering
Program Unit	Construction Management
Reporting for Academic Year	2015-2016
Department Chair	Saeid Motavalli
Date Submitted	10/8/2016

**1. SELF-STUDY (about 1 page)**

**A. Five-year Review Planning Goals**

The Construction Management program in the School of Engineering offers degrees at Bachelor's and Master's levels. The Construction Management program is currently a candidate for accreditation by the American Council for Construction Education (ACCE) and is in the process of preparing a self-assessment study to be submitted in February 2017. We are expecting a campus visit by the accreditation agency in the Fall of 2017. This will be our first accreditation visit due to the reason that ACCE requires a group of program graduates in order to consider any program towards accreditation.

**B. Five-year Review Planning Goals Progress**

The Department achieved the objective of hiring Dr. Fadi Castronovo, who became our fourth TT Faculty for 2016-2017. All faculty hired for the Construction Management program hold a Bachelor in Civil Engineering in anticipation of starting a Civil engineering program.

**C. Program Changes and Needs**

We have hired a new faculty in Construction Management that will join the School of Engineering in September 2016. Also, we had a new faculty join our program in September 2015. In addition, all our undergraduate and graduate courses are now separated.

Curriculum has been modified to respond to assessment data collected and analyzed. As a result of ACCE preliminary findings, we initiated an evaluation of our courses in the Construction Management programs educational objectives, which resulted in some changes to our PEO's.

We proposed the addition of an undergraduate civil engineering program in 2015. Academic Affairs has requested that we modify the proposal to reflect the transfer to semester curriculum. We like to start offering the degree program in Fall 2018. The proposal for inclusion of civil engineering to the Academic Master Plan has been submitted to the Chancellor's Office.

## **2. SUMMARY OF ASSESSMENT (about 1 page)**

### **A. Program Student Learning Outcomes**

A yearly schedule for assessment of program LOs has been generated. The PLOs have remained unchanged to match with the learning outcomes determined by ACCE. These are as follows:

The Construction Management program provides quality engineering education that produces graduates who:

- a. Have knowledge in the core construction management areas (construction materials and methods, safety, codes, scheduling, commissioning, planning and control, project management, construction law, cost accounting, human resources management, environmental and safety issues in construction).
- b. Have knowledge in broad areas of construction management beyond the core areas.
- c. Ability to communicate effectively.
- d. Ability to function in teams.
- e. Have the knowledge of sustainable building and construction techniques and relevant state regulations.
- f. Have an awareness of the complex environment (involving professional and ethical responsibilities) in which they will practice their profession.
- g. Ability to educate themselves and be prepared for lifelong learning and professional development.
- h. Have experience in solving real life problems.

## **B. Program Student Learning Outcome(s) Assessed**

c. Ability to communicate effectively.

e. Have the knowledge of sustainable building and construction techniques and relevant state regulations.

## **C. Summary of Assessment Process**

Our assessment process is based on the requirements established by the American Council for Construction Education (ACCE). Every course outcome is linked to a program outcome, and is assessed by a student survey at the end of the quarter. Additionally, course outcomes are mapped to quizzes, exams and project requirements, and assessed by each faculty using Department of Engineering course assessment forms. Also, mappings of program outcomes to the University ILO's have been developed.

## **D. Summary of Assessment Results**

Outcome c was assessed in CMGT 4620 – Senior Project II, using the final course project report and presentation. Groups of students that fulfilled the outcome had a score of at least 30 out of 40 (75%). Based on this threshold, 100% of the student groups achieve the outcome. We propose to include peer evaluations to the project.

Outcome e was assessed in CMGT 2070 – Construction Materials and Methods II. Quiz 3, which focused on concrete construction techniques, was used. Out of 19 students, one had a score equal or below 75%, which means that 95% of students have achieved outcome e.

## **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 2010 - 2015**

<b>Engineering</b>					
	<b>Fall Quarter</b>				
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>A. Students Headcount</b>					
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
	<b>College Years</b>				
<b>B. Degrees Awarded</b>					
	<b>10-11</b>	<b>11-12</b>	<b>12-13</b>	<b>13-14</b>	<b>14-15</b>
1. Undergraduate	11	12	19	24	38
2. Graduate	18	30	32	32	34
3. Total	29	42	51	56	72
	<b>Fall Quarter</b>				
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>C. Faculty</b>					
<b>Tenured/Track Headcount</b>					
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%
<b>Lecturer Headcount</b>					
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
<b>Instructional FTE Faculty (FTEF)</b>					
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
<b>Lecturer Teaching</b>					
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
<b>D. Student Faculty Ratios</b>					
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
<b>E. Section Size</b>					
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

	<b>Fall Quarter</b>				
<b>Headcount Enrollment</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b><i>Computer Engineering</i></b>					
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
<b><i>Engineering</i></b>					
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
<b><i>Engineering Management</i></b>					
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
<b><i>Construction Management</i></b>					
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
	<b>College Years</b>				
<b>Degrees Awarded</b>	<b>10-11</b>	<b>11-12</b>	<b>12-13</b>	<b>13-14</b>	<b>14-15</b>
<b><i>Engineering</i></b>					
1. Undergraduate	11	12	16	18	18
2. Graduate	0	0	0	0	0
3. Total Number of Majors	11	12	16	18	18
<b><i>Engineering Management</i></b>					
1. Undergraduate	0	0	0	0	0
2. Graduate	17	13	17	12	19
3. Total Number of Majors	17	13	17	12	19
<b><i>Computer Engineering</i></b>					
1. Undergraduate	0	0	1	1	7
2. Graduate	0	0	0	0	0
3. Total Number of Majors	0	0	1	1	7
<b><i>Construction Management</i></b>					
1. Undergraduate	0	0	2	5	13
2. Graduate	1	17	15	20	15
3. Total Number of Majors	1	17	17	25	28

<b>D. Student Faculty Ratios</b>	<b>Engineering ENGR</b>				
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
<b>E. Section Size</b>					
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
<b>D. Student Faculty Ratios</b>	<b>Construction Management (CMGT)</b>				
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
<b>E. Section Size</b>					
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
<b>D. Student Faculty Ratios</b>	<b>Compter Engineering (CMPE)</b>				
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	.	.	.	.	.
<b>E. Section Size</b>					
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

<b>D. Student Faculty Ratios</b>	<b>Industrial Engineering INDE)</b>					
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	.	.	.	.	.	
<b>E. Section Size</b>						
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	