



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

College	CoS
Department	Engineering
Program Unit	Construction Management
Reporting for Academic Year	2014-2015
Department Chair	Saeid Motavalli
Date Submitted	11/23/2015

1. SELF-STUDY (about 1 page)

A. Five-year Review Planning Goals

The Engineering Department offers undergraduate and graduate degree programs in Construction Management. The Department is planning to apply for the accreditation of the undergraduate Construction Management degree program by the American Council for Construction Education (ACCE) during the 2015-16 academic year. The first cohort of students graduated in June 2013.

The Construction Management program started at the graduate level in Winter 2009, and the undergraduate degree program was initiated in Fall 2010. This is the third CAPR report for the Construction Management program.

The Engineering Department has prepared a proposal for a Civil Engineering Degree program, supported by the Construction Management and Engineering faculty.

B. Five-year Review Planning Goals Progress

The Department has initiated the process to hire the forth TT Faculty for 2015-2016. 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

A new laboratory in Building Information Modeling is under development. This laboratory will be used for research, teaching and collaboration with construction industry. We are adding equipment to the Concrete laboratory to develop it into a Sustainable Construction Materials Laboratory serving the teaching and research needs of the Construction Management program, and the anticipated needs of the future Civil Engineering program. Equipment for the

development of a surveying laboratory has been purchased. We are planning to install this equipment in one of our existing lab spaces (SSC 247). Several curriculum modification proposals have been approved by the campus and to bring the curriculum in compliance with accreditation requirements. Based on the new curriculum, our Construction Management program has received the qualification approval to apply for accreditation. Part of these changes, are the addition of Math and Business requirements of the program and also the addition of a Surveying course.

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:

1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Create a construction project safety plan.
4. Create construction project cost estimates.
5. Create construction project schedules.
6. Analyze professional decisions based on ethical principles.
7. Analyze construction documents for planning and management of construction processes.
8. Analyze methods, materials, and equipment used to construct projects.
9. Apply construction management skills as a member of a multi-disciplinary team.
10. Apply electronic-based technology to manage the construction process.
11. Apply basic surveying techniques for construction layout and control.
12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
13. Understand construction risk management.
14. Understand construction accounting and cost control.
15. Understand construction quality assurance and control.
16. Understand construction project control processes.
17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
18. Understand the basic principles of sustainable construction.
19. Understand the basic principles of structural behavior.
20. Understand the basic principles of mechanical, electrical and piping systems.

B. Program Student Learning Outcome(s) Assessed

Outcomes 3 was assessed during the 2014-2015 academic year.

C. Summary of Assessment Process

Our assessment process is based on the requirements established by the American Council for Construction Education (ACCE). The program outcomes are grouped in four main categories: General Education, Mathematics and Science, Business and Management, Construction Science, and Construction.

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 3 was assessed in CMGT 4800 Safety, using the final course project, which consisted of developing a safety plan. Objective assessment indicates the following results: the project average was 86%, every student achieved a score over or equal to 84; We determined that the students did achieve this outcome. We will monitor these scores and relate them to the changes we are making to the curriculum. Changes that have resulted from the assessment Process are:

Reduce the size of project teams, include peer evaluations to the project.

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 -
2014**

Engineering	Fall Quarter				
	2010	2011	2012	2013	2014
A. Students Headcount					
1. Undergraduate	149	172	217	223	226
2. Postbaccalaureate	3	1	0	0	0
3. Graduate	92	97	70	86	150
4. Total Number of Majors	244	270	287	309	376
College Years					
B. Degrees Awarded					
	09-10	10-11	11-12	12-13	13-14
1. Undergraduate	7	11	12	19	24
2. Graduate	23	18	30	32	32
3. Total	30	29	42	51	56
Fall Quarter					
C. Faculty					
Tenured/Track Headcount					
1. Full-Time	5	5	6	7	8
2. Part-Time	0	0	0	0	0
3a. Total Tenure Track	5	5	6	7	8
3b. % Tenure Track	100.0%	83.3%	85.7%	77.8%	88.9%
Lecturer Headcount					
4. Full-Time	0	0	0	0	0
5. Part-Time	0	1	1	2	1
6a. Total Non-Tenure Track	0	1	1	2	1
6b. % Non-Tenure Track	0.0%	16.7%	14.3%	22.2%	11.1%
7. Grand Total All Faculty	5	6	7	9	9
Instructional FTE Faculty (FTEF)					
8. Tenured/Track FTEF	4.4	3.6	6.0	5.2	6.7
9. Lecturer FTEF	0.2	0.4	0.5	0.6	0.4
10. Total Instructional FTEF	4.6	4.1	6.5	5.8	7.1
Lecturer Teaching					
11a. FTES Taught by Tenure/Track	84.3	80.5	82.7	83.7	107.9
11b. % of FTES Taught by Tenure/Track	91.3%	78.4%	87.8%	77.7%	81.6%
12a. FTES Taught by Lecturer	8.0	22.1	11.5	24.0	24.3
12b. % of FTES Taught by Lecturer	8.7%	21.6%	12.2%	22.3%	18.4%
13. Total FTES taught	92.3	102.7	94.1	107.7	132.2
14. Total SCU taught	1384.0	1540.0	1412.0	1615.0	1983.0
D. Student Faculty Ratios					
1. Tenured/Track	19.2	22.1	13.7	16.2	16.1
2. Lecturer	38.1	50.4	23.8	39.3	60.5

3. SFR By Level (All Faculty)	20.0	25.2	14.5	18.6	18.6
4. Lower Division	11.9	25.8	15.9	16.5	14.0
5. Upper Division	21.8	23.4	14.2	17.4	15.2
6. Graduate	22.5	27.0	14.4	21.9	28.5
<i>E. Section Size</i>					
1. Number of Sections Offered	21.9	21.8	26.6	28.8	34.0
2. Average Section Size	20.0	25.1	20.6	21.6	17.8
3. Average Section Size for LD	21.5	33.3	27.0	23.8	26.0
4. Average Section Size for UD	13.8	15.5	18.5	19.1	14.3
5. Average Section Size for GD	26.2	42.3	19.4	24.5	21.8
6. LD Section taught by Tenured/Track	4	3	4	5	5
7. UD Section taught by Tenured/Track	12	12	12	16	20
8. GD Section taught by Tenured/Track	9	9	12	10	8
9. LD Section taught by Lecturer	0	0	0	0	0
10. UD Section taught by Lecturer	1	3	2	3	2
11. GD Section taught by Lecturer	1	1	2	1	2

Source and definitions available at:

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