**2018-2019 Annual Program Assessment Report Guide**

Please submit report to your department chair or program coordinator, the Associate Dean of your College, and to [james.solomon@csun.edu](mailto:james.solomon@csun.edu), Director of the Office of Academic Assessment and Program Review, by **September 30, 2019**. You may, but are not required to, submit a separate report for each program, including graduate degree programs, which conducted assessment activities, or you may combine programs in a single report. **Please include this form with your report in the same file and identify your department/program in the file name.**

**College: Engineering and Computer Science**

**Department: Civil Engineering and Construction Management**

**Program: Civil Engineering**

**Assessment liaison: Tzong-Ying Hao**

1. **Please check off whichever is applicable:**

X

**A. \_\_\_\_\_\_\_\_ Measured student work within program major/options.**

X

**B. \_\_\_\_\_\_\_\_ Analyzed results of measurement within program major/options.**

X

**C. \_\_\_\_\_\_\_\_ Applied results of analysis to program review/curriculum/review/revision major/options.**

**D. \_\_\_\_\_\_\_\_\_ Focused exclusively on the direct assessment measurement of General Education Arts and Humanities student learning outcomes**

1. **Overview of Annual Assessment Project(s).** On a separate sheet,provide a brief overview of this year’s assessment activities, including:

* an explanation for why your department chose the assessment activities (measurement, analysis, application, or GE assessment) that it enacted
* if your department implemented assessment **option A**, identify which program SLOs were assessed (please identify the SLOs in full), in which classes and/or contexts, what assessment instruments were used and the methodology employed, the resulting scores, and the relation between this year’s measure of student work and that of past years: (include as an appendix any and all relevant materials that you wish to include)
* if your department implemented assessment **option B**, identify what conclusions were drawn from the analysis of measured results, what changes to the program were planned in response, and the relation between this year’s analyses and past and future assessment activities
* if your department implemented **option C**, identify the program modifications that were adopted, and the relation between program modifications and past and future assessment activities
* if your program implemented **option D**, exclusively or simultaneously with **options** **A, B, and/or C**, identify the basic skill(s) assessed and the precise learning outcomes assessed, the assessment instruments and methodology employed, and the resulting scores
* in what way(s) your assessment activities may reflect the university’s commitment to diversity in all its dimensions but especially with respect to underrepresented groups
* any other assessment-related information you wish to include, including SLO revision (especially to ensure continuing alignment between program course offerings and both program and university student learning outcomes), and/or the creation and modification of new assessment instruments

**3. Preview of planned assessment activities for 2019-20.** Include a brief description as reflective of a continuous program of ongoing assessment.

**Overview of Annual Assessment Project:**

The department of Civil Engineering and Construction Management prepared the Self-Study Report for the upcoming accreditation visit in October 2019. The department established an assessment and continuous improvement plan that is designed around the accreditation process required by ABET for the program. The improvement is based on the assessment results which are done on three levels: (a) Course Objectives Assessment which correlates to (b) Student Outcomes Assessment, and (c) Program Educational Objectives (not assessed). Figure 1 shows the assessment and continuous improvement model. The practice of this model is by assessing and achieving the course objectives for each course, which in turn leads to the assessment the Student Outcomes. By assessing and achieving the specific student outcomes for each course, we correlate the achievement of the Program Educational Objectives. The assessment process is illustrated in Figure 2.



Figure 1 Assessment and Continuous Improvement Model



Figure 2 Illustration of the Assessment Process

The assessment tools used to gather the data include:

* Students’ Coursework
* Student Course Evaluations
* EBI Senior Exit Surveys
* Fundamentals of Engineering Examination Results
* Industry Liaison Council Feedback
* Faculty Committee
* CSUN Counts and CSU Student Success Dashboard

An experimental course for CE240 Engineering Statics was established and implemented in Fall 2018 and Spring 2019. This experimental course includes a 3-unit lecture (CE 296S) and a 1-unit (3 hours) problem solving session (CE 296SL). Students have a grade C or C- in PHYS 220A must enroll in this course. The instructional strategies focus not only on the subject matters but also on increasing students' participation, enthusiasm, level of confidence and capability to learn how to learn. The department received positive feedback from the students took CE296SI/L in Fall 2018 and Spring 2019. The assessment of this experimental course is a key indicator. The department carefully measured student work, analyze data, discuss results of measurement and apply results of analysis to the course revision. Required changes will be discussed and developed in the next 3 to 6 years. The ultimate goal is to develop innovations that increase student success. For the two-semester sequence, the students that passed the course were 41 out of 43 in Fall 2018, and 34 out of 37 in Spring 2019. The DUF rate reduced from about 33% to 4.65% in Fall 2018 and 8.11% in Spring 2019. The department faculty will discuss the change in pedagogy of offering CE240 with the new model and hence improve the passage rate of the students taking the course. It is worth to note that CE240 is a required course in Electrical Engineering, Manufacturing Systems Engineering and Mechanical Engineering. As such, improving the passage rate of the students taking the course will have positive effect on the students in Civil Engineering and other disciplines.

**Preview of planned assessment activities for next year:**

ABET made a number of modifications to the student outcomes. The updated course alignment matrix was approved by the department in Fall 2018. New Student Outcomes (1) through (7) Assessment begins in Fall 2019. As soon as the results of first cycle become available, the department will review the Course Contribution and Student Outcomes Alignment.