

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

ACADEMIC SENATE

ACADEMIC PROGRAMS COMMITTEE

REPORT TO

THE ACADEMIC SENATE

AP-011-245

Program Review for MS in Civil Engineering

Academic Programs Committee

Date: 01/23/2025

**Executive Committee
Received and Forwarded**

Date: 09/17/2025

Academic Senate

**Date: 09/24/2025
First Reading**

**Date: 10/15/2025
Second Reading**

BACKGROUND:

As part of Cal Poly Pomona's planning and assessment cycle for academic programs, a self-study was prepared by the Department of Civil Engineering. An external review was conducted by Mark Tufenkjian (CSU Los Angeles), and Akthem Al-Manaseer (San Jose State University) on 3 and 4 May 2022 with their report being filed on 3 June 2022 after discussions with Dean Baski, Interim Dean of College of Engineering, Chair Yasser Salem, department tenure-line faculty, adjunct faculty, and students. The Department and Dean both prepared responses to this external review. Additionally, an internal review was conducted on 14 September 2022 by Stephen Osborn (Geological Sciences) and Shahnaz Lotfipour (Education). The Academic Programs Committee has deliberated on these reviews and responses.

RESOURCES CONSULTED:

Dr. Andrew Ketsdever, Dean, College of Engineering

Dr. Yasser Salem, Chair, Department of Civil Engineering (*During consultation referred to College AIC, Dr. Yeung due to transition in department leadership*)

Dr. Ronald Yeung, Associate Dean, College of Engineering

DISCUSSION and RECOMMENDATION:

This program review addresses the Master of Science in Civil Engineering program in the Department of Civil Engineering at Cal Poly Pomona. This course of study includes Construction Engineering and Management, Environmental Engineering and Water Resources, Geotechnical Engineering, Structural Engineers, and Transportation Engineering. As noted in the external review, "the department is highly functional, exudes positive energy, and is up to the task for what it takes to strengthen and grow the MS program."

As expected from that brief comment, the areas of strength cited by the self-study, the external review, and the internal review are numerous. The solid and effective departmental leadership and strong number of Tenured/Tenure-Track faculty (22) combined with the two (2) full-time lecturers covering the various aspects of civil engineering have helped to build a healthy undergraduate population of over 1,400 students providing an excellent feeder into the MS program. Reviewers noted the department's foresight in starting a strategic plan in the fall of 2020 and their building of a comprehensive assessment plan and their Industry Advisory Board helping to ensure well-prepared graduates. Also encouraging were the up-to-date hardware and software in the computer labs supporting the learn-by-doing ethos of the university. The increased women participation in the program from 20% in fall of 2016 to 40% in Fall of 2020 when the report was submitted was also highlighted by the external reviewers. The five different options mentioned above and the option of a capstone project for students in the program was also seen as a positive aspect of the program. The sheer size of the department creates a tremendous need for administrative support. This is noted by Dean Ketsdever, who when reached for comment said that a key aspect challenging this department is "the fact that [it] is a large (huge by CPP standards) department that has some issues the rest of campus may not realize. The assigned time for the chair is the same for this department as it is for a department

roughly half its size. This department has one analyst for staff support only.” Associate Dean Yeung noted that “the MSCE program is unique in that it has several options related to the common specialties in civil engineering, which offers opportunities to students but is more difficult to manage.”

This management difficulty is a key piece of the program review in all facets (self, external, and internal) and noted as an area for improvement across the board. More staff support (not student assistant support) in the areas of technical and administrative support was cited by the reviewers and was the top priority in the departmental action plan.

The banking and utilization of WTUs earned through mentoring thesis projects and directing capstone projects was a point of concern in several aspects of the review and cited in the departmental action plan: “to develop an equitable process to allocate the MSCE courses supervisory units among all faculty members. The chair will develop a clear and well-defined department process for faculty to use.”

Several specific recommendations of curricular adjustments and standards were made by the reviewers all geared towards ensuring a blending of the program and increasing enrollment. This includes adjustments to comprehensive exam standards and policies aimed at providing more student support and focusing on student success. The department cites several areas where they are focusing their energies to increase student success including course modalities, student retention, etc.

The physical lab research space, especially in the Structural area, was found to be lacking. This results in the combined use of curricular labs with research labs limiting research productivity and increasing challenges on the faculty. The department plans to address this by disposing of outdated equipment, increasing the space and technician support for labs.

Recommendation:

The Academic Programs Committee commends the Department of Civil Engineering for its hard work and commitment to improvement and the obvious pride taken in the program by both faculty and students. The Department’s review shows a tremendously thorough and focused effort to continue improving.