

Outcomes Assessment

Student Learning Outcomes and Degree Program Objectives



CAL POLY

Construction Management

COLLEGE OF ARCHITECTURE
& ENVIRONMENTAL DESIGN

PLO# 5. Create construction project schedules.

Assessment Measure Summary Results

Assessment Measure 1: Individual Assignment with Rubric		MEETS TARGET
Type:	Direct Measure	
Course & Assignment:	CM 313 (Commercial Construction Management); Scheduling Lab	
Goal:	80% of students achieve 80% or better	
Date(s) of OAM reviews:	June 2021 (for AY 2020-2021) June 2022 (for AY 2021-2022) June 2023 (for AY 2022-2023) June 2025 (for AY 2024-2025) June 2026 (for AY 2025-2026)	
Results:	98% of students achieved 80% or higher in AY 2020-2021 98% of students achieved 80% or higher in AY 2021-2022 100% of students achieved 80% or higher in AY 2022-2023 96% of students achieved 80% or higher in AY 2024-2025 98% of students achieved 80% or higher in AY 2025-2026	
Revisions made to instrument:	None.	
Actions Taken and Results:	No follow-up action is needed.	
Recommendations for Improvement:	Faculty consistently report and analyze assessment data each quarter and year. Sharing their effective practices with other faculty and the outcomes assessment committee would help streamline, evaluate, and better document assessment processes for all measures.	

Assessment Measure 2: Survey – Graduating Seniors		GOAL PARTIALLY MET
Type:	Indirect Measure	
Goal:	80% of students rate their ability as good and above.	
Dates of OAM reviews:	June 2021 (for AY 2020-2021); June 2024 (for AY 2023-2024); June 2025 (for AY 2024-2025); June 2026 (for AY 2025-26)	
Results:	June 2021: 79% of students rated abilities as good or above (n=53) June 2024: 81% of students rated abilities as good or above (n=59) June 2025: 78% of students rated abilities as good or above (n=9) June 2026: 90% of students rated abilities as good or above (n=20)	
Actions Taken:	Student-led senior projects collected qualitative data using focus groups to get additional insights (June 2024 and June 2025).	
Recommendations for Improvement:	Work with ASCM student club to increase response rates.	

Assessment Measure 3: Survey – Industry Employer		GOAL MET
Type:	Indirect Measure	
Goal:	50% of employers rate students' abilities as good and above.	

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Dates of OAM reviews:	June 2021 (for AY 2020-21); June 2024 (for AY 2023-2024); June 2026 (for AY 2025-2026)
Results:	June 2021: 85% of employers rated abilities as good or above (n=21) June 2024: 58% of employers rated abilities as good or above (n=20) June 2026: 80% of employers rated abilities as good or above (n=30)
Actions Taken:	Advertising survey at annual CMAC meeting to increase response rate
Recommendations for improvement:	Survey lacks consistent responses; work with CMAC Committee to determine ways to increase response rates.

Assessment Measure 4: AIC Exam		GOAL MET
Type:	Indirect Measure (through Fall 2023)	
Goal:	The department's performance is better than the national average.	
Dates of OAM review:	Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023	
Results:	100% of students outperformed the national average on each exam (Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023).	
Actions Taken:	None	
Recommendations for Improvement:	After Fall 2023, the AIC exam no longer reports results for this measure; discontinue use of AIC exam as assessment measure for this PLO	

Method of Assessment:

This assessment evaluates students' creation of a construction schedule using a standardized rubric created and validated by faculty.

Actions taken:

Direct Assessment Measure:

No adjustments have been made to the assessment instrument. The assessment tool is still considered appropriate for this PLO. The assessment instrument is well structured and evaluates students' abilities to create a schedule.

Discussion:

PLO 5 is progressing, but further refinement would help clarify the expected level of scheduling competency. The current outcome, "Create Construction Project Schedules," is broad, and given students' placement in the curriculum and the structure of CM 313, their scheduling skills are best described as introductory. Limited course time and the breadth of topics restrict in-depth scheduling instruction. At this stage, students are still building foundational skills in reading drawings and understanding construction operations. Consequently, the course introduces basic scheduling concepts and guides students in developing a Uniformat Level 3 schedule. Expanding scheduling instruction would require reducing coverage of other essential topics.

A change to the assignment used for PLO assessment may improve learning outcomes. Currently, students complete a full schedule in three hours on an unfamiliar project at the end of the quarter, in addition to a mid-quarter scheduling exercise. Requiring a second software-based schedule at quarter's end has led to student fatigue without clear gains in learning. Using the mid-quarter scheduling

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assignment as the primary PLO assessment and removing the end-of-quarter assignment could streamline the process and enhance student engagement.

Recommendations for Improvement:

In Fall 2026, the outcomes assessment measure will move to CM 4450 as part of the semester-based curriculum transition to have the assessment later in a student's academic career. Current OAM faculty should collaborate with the CM 4450 team to establish effective methods for data collection, analysis, and reporting.

Additional Data for Outcomes Assessment Measures:

Assessment Measure 1: Individual Assignment with Rubric

Quarter	Number of CM students who completed the quiz/exam	Total number of CM students with 80% or more on the quiz/exam	Percent of students with 80% or more
Fall 2020	19	18	94.74%
Winter 2021	19	19	100.00%
Spring 2021	20	20	100.00%
Fall 2021	21	21	100.00%
Winter 2022	19	19	100.00%
Winter 2022	24	24	100.00%
Spring 2022	23	22	95.65%
Fall 2022	23	23	100.00%
Winter 2023	24	24	100.00%
Spring 2023	22	22	100.00%
Fall 2024	20	20	100.00%
Fall 2024	17	15	88.24%
Winter 2025	24	23	95.83%
Winter 2025	22	22	100.00%
Spring 2025	25	24	96.00%
Spring 2025	24	23	95.83%
Fall 2025	23	23	95.83%
Fall 2025	24	23	95.83%
Winter 2026	24	22	91.67%
Winter 2026	24	22	91.67%
Spring 2026	24	20	83.33%
Spring 2026	23	21	91.30%

Assessment Measure 2: Survey – Graduating Seniors

Rating	2020-2021	2023-2024	2024-2025	2025-2026
Poor	3	3	0	0
Fair	8	8	2	2
Good	19	22	5	8
Very Good	12	16	2	9
Excellent	11	10	0	1
Total Responses	53	59	9	20
Total - Good or Better	42	48	7	18
Percentage - Good or Better	79%	81%	78%	90%

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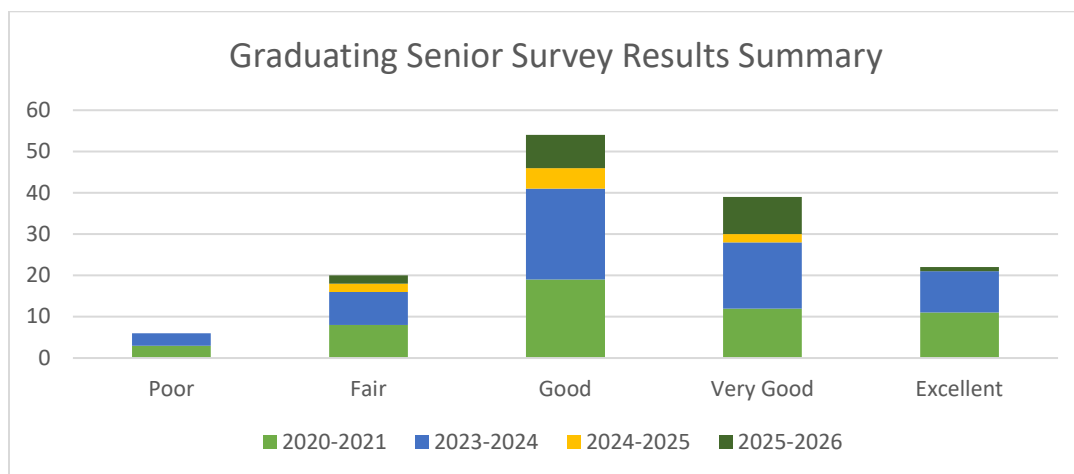
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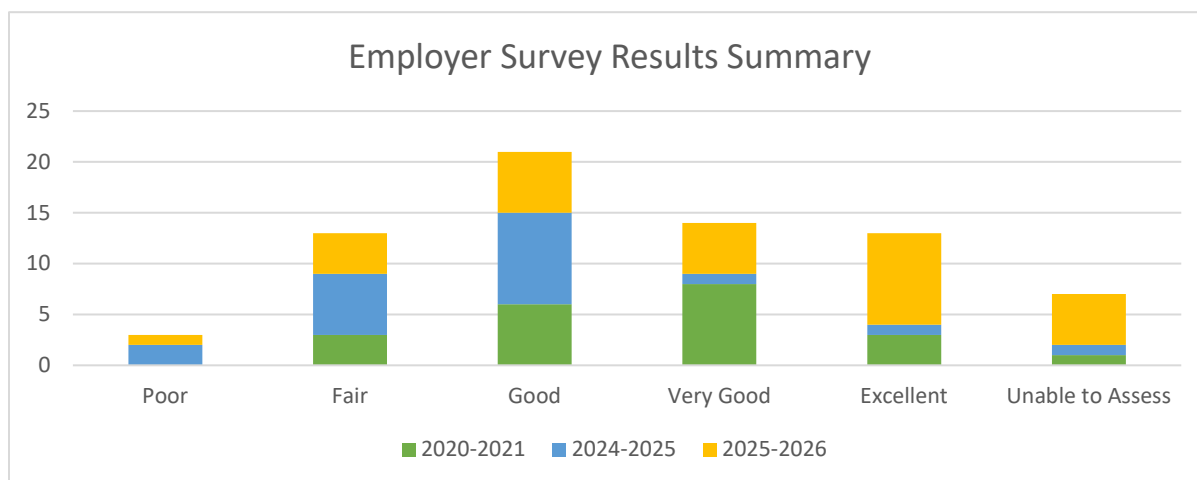
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Assessment Measure 3: Survey – Industry Employers

Rating	2020-2021	2024-2025	2025-2026
Poor	0	2	1
Fair	3	6	4
Good	6	9	6
Very Good	8	1	5
Excellent	3	1	9
Unable to Assess	1	1	5
Total Responses	21	20	30
Total - Good or Better	17	11	20
Percentage - Good or Better (excludes unable to assess responses)	85%	58%	80%



Assessment Measure 4: AIC Exam Results Summary:

Note: The AIC exam stopped reporting PLO5 results after Fall 2023.

AIC Exam Results - PLO No.5

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	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026
School Average	73%	82%	88%	81%	78%	0%	0%	0%	0%	0%
National Average	64%	74%	77%	71%	70%	0%	0%	0%	0%	0%

