

Student Learning Outcomes

List of Student Learning Outcomes (SLOs)

- SLO #01. Create written communications appropriate to the construction discipline.
- SLO #02. Create oral presentations appropriate to the construction discipline.
- SLO #03. Create a construction project safety plan.
- SLO #04. Create construction project cost estimates.
- SLO #05. Create construction project schedules.
- SLO #06. Analyze professional decisions based on ethical principles.
- SLO #07. Analyze construction documents for planning and management of construction processes.
- SLO #08. Analyze methods, materials, and equipment used to construct projects.
- SLO #09. Understand construction management skills as a member of a multi-disciplinary team.
- SLO #10. Apply electronic-based technology to manage the construction process.
- SLO #11. Apply basic surveying techniques for construction layout and control.
- SLO #12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- SLO #13. Understand construction risk management.
- SLO #14. Understand construction accounting and cost control.
- SLO #15. Understand construction quality assurance and control.
- SLO #16. Understand construction project control processes.
- SLO #17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- SLO #18. Understand the basic principles of sustainable construction.
- SLO #19. Understand the basic principles of structural behavior.
- SLO #20. Understand the basic principles of mechanical, electrical, and piping systems.

Assessments of SLOs

The Student Learning Outcomes are assessed using direct and indirect measures. The direct measure is based on student achievements on specific course assignments. The indirect measure is based on survey questions directly mapped to the learning outcomes.

The table below summarizes the program's Student Learning Outcomes, assessment metrics, assessment frequency, and data collection procedure.

Assessment Tools	Data Collection Procedure	Frequency of Use
Direct Assessments of Student Achievement of Student Learning Outcomes	The faculty teaching the course shares assessment data with the Undergraduate Program Director.	Every time a course related to the assessment of a specific SLO is taught during a regular semester
Exit Surveys (Statistics)	A link to an exit survey is provided to all graduating students. They must submit their response to obtain their card for participation in the commencement ceremonies.	Twice a year (before December and May commencement exercises)

Alumni Surveys

A link to an alumni survey is emailed to CM program alumni.

Every Three Years

Employer Surveys

A link to an employer survey is emailed to CM Program student employers.

Every Three Years

End of Course Survey Form

Faculty submit their information on each course they serve as the instructor of record.

Every semester

The Performance Criteria used to measure the achievement of Student Learning Outcomes are listed below.

1. For the direct assessment of Student Learning Outcomes, the faculty in each course set the performance criteria for the direct assessment of the achievement of SLOs. The measure is the number of students meeting the criterion divided by the total number of students in the class. The construction faculty have agreed to use the criterion that if 70% or more of the students score 70% (score of 3 out of 5; Likert Chart) or better on the work that is used as an assessment instrument, then the learning outcome is achieved. Moreover, if a learning outcome is assessed in more than one course, then it is considered achieved if its requirements are met in at least one of the courses where it is being assessed.
2. For the indirect assessment of the Student Learning Outcomes, a learning outcome is considered achieved if 70% or more of the respondents score of 3 or better for the outcome. The weighted average of the scores of all the respondents reaches the threshold of 3.0/4.0

SLO Direct Assessments

The ACCE SLOs are integrated with every course in the curriculum as part of the course learning outcomes. The table below lists the courses and shows where the ACCE SLOs are supported and assessed.

SLO Assessment and CONS Course Matrix

[illegible]

CONS 4345 Facilities Management																			
CONS 4346 Internship	✓							✓											
CONS 4355 Project Delivery Systems	✓									✓									
CONS 4360 Construction Labor and Safety	✓	✓	✓																
CONS 4363 Law and Ethics	✓	✓				✓					✓					✓			
CONS 4374 Building Information Modeling									✓										
CONS 4375 Scheduling and Mobilization				✓		✓			✓		✓			✓					
CONS 4377 Construction Project Controls		✓											✓	✓					
CONS 4395 Mediation																✓			
ARCH 3328 Material and Methods								✓											
ARCH 3329 Structures I																		✓	
ARCH 3345 Environmental Systems		✓																	✓
ARCH 3346 Sustainable Building		✓														✓			
ARCH 4344 CAD Construction Documents	✓	✓		✓		✓	✓		✓			✓							
ARCH 4343 Structures II																		✓	

✓ The course assessment tools are used for the ACCE review.

✓ The course supports the SLO.