Haskell & Irene Lemon Construction Science Division

ACCE SLO Assessment Outcomes & Strategic Plan Progress

2024-2025 academic year

This document serves as the assessment report for the Bachelor of Science – Construction Science program for the 2024/2025 school year. This report is based on the undergraduate assessment and academic quality plan for the Construction Science Division, as approved by the CNS faculty in August 2024.
As of Fall 2024, the Division had 327 students, and in May of 2025 graduated 44 students. The Bachelor of Science in Construction Science's CIP code is: 522001

This document contains seven sections as follows:

1. **Student Leaning Outcomes Summary** – a summary of the results of the 17 ACCE SLOs assessed in the program.
2. **Faculty involved with the Program** – A listing of all courses taught in the ACCE accredited program, faculty teaching each course, and SLOs assessed in the courses
3. **Direct Assessment of Student Learning Outcomes and Course Summaries** – A listing by course of grade distribution, SLOs assessed, the results of assessment, and any instructor anticipated changes or suggestions.
4. **Indirect Assessment of Student Learning Outcomes Via Student Exit Surveys** – Results of student exit surveys regarding SLOs.
5. **Indirect Assessment of Student Learning Outcomes Via Industry/Alumni Surveys** – Results of industry/alumni surveys regarding student competence with SLOs.
6. **Strategic Plan Progress** – Summary of progress towards strategic plan goals and objectives.

1. Student Learning Outcomes Summary

Instructors were asked to submit what they used to assess SLOs and the outcomes of that assessment. This assessment occurs every year. The Division of Construction Science Undergraduate Assessment and Academic Quality Plan (approved by faculty 8/24) establishes a target of 70% of students earning a grade of 70% or higher for all SLO assessments. The following are the direct and indirect assessment data for each SLO.

SLO #1: *Create written communications appropriate to the construction discipline*

- Direct Assessment:
  - In CNS 4993, the instructor uses the second deliverable on the final project, a basis estimate to deliver a narrative to the owner on how the estimate was put together. to assess SLO #1. Out of 44 students, 100% earned a grade of 70% or higher.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO#2: *Create oral presentations appropriate to the construction discipline*

- Direct Assessment:
  - In CNS 3413, the instructor used a presentation to assess SLO #2. Out of 58 students, 98% earned a grade of 70% of higher.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO#3: *Create a construction project safety plan*

- Direct Assessment:
  - In CNS 3881 the instructor used the final project to assess SLO #3. Out of 44 students, 100% earned a 70% or better on the project.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO#4: *Create construction project cost estimates*

- Direct Assessment:
  - In CNS 3533, the instructor used questions #23-25 on the final exam to assess SLO #4. Out of 55 students, 64% earned a 70% or higher on those questions.
- In CNS 4993, the instructor used a portion of the final project that included five trade packages as well as general conditions to assess SLO #4. Out of 44 students 100% met the benchmark of a 70% or higher.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 94% of industry professionals indicated students met or exceeded expectations.

SLO #5: *Create construction project schedules*

- Direct Assessment:
  - In CNS 4993, the instructor used the final project to assess SLO #5. Out of 44 students 100% earned a 70% or higher.
- Indirect Assessment:
  - 93% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO#6: *Analyze professional decisions based on ethical principles*

- Direct Assessment:
  - In CNS 3533, the instructor used a homework assignment to assess SLO #6. Out of 55 students, 96% earned a 70% or higher on the assignment.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO#7 *Analyze methods, material and equipment used to construct projects*

- Direct Assessment:
  - In CNS 2811, the instructor used a material submittal assignment to assess SLO #8. Out of 76 students, 90% earned a 70% or higher on the assignment.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO #8 *Apply electronic-based technology to manage the construction process*

- Direct Assessment:
  - In CNS 4133, the instructor used a project and final exam to assess SLO #8. Out of 44 students 100% earned a 70% or higher on the project and exam.
- Indirect Assessment:
  - 98% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO #9 *Apply basic surveying techniques for construction layout and control*

- Direct Assessment:
  - In CNS 3103, the instructor used a combination of 10 lab assignments and two exams to assess SLO #9. Out of 60 students 100% earned a 70% or higher on these assignments and exam.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 94% of industry professionals indicated students met or exceeded expectations.

SLO #10 *Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.*

- Direct Assessment:
  - In CNS 1111, the instructor used quizzes 1, 2, 4, & 5 to assess SLO #10. Out of 110 students, 55% earned a 70% or higher on the quizzes.
  - In CNS 4523, the instructor uses an essay to assess SLO #10. Out of 44 students, 100% earned a grade of 70% or higher.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO #11 *Understand construction accounting and cost control*

- Direct Assessment:
  - In CNS 3823 the instructor used two exams to assess SLO #11. Out of 54 students, 70% earned a 70% or higher on the exams.
- Indirect Assessment:
  - 98% of students indicated they had confidence in applying the SLO.
  - 82% of industry professionals indicated students met or exceeded expectations.

SLO #12 *Understand construction quality assurance*

- Direct Assessment
  - In CNS 2811, the instructor used daily field reports to assess SLO #12. Out of 76 students, 93% earned a 70% or better on those assignments.
  - In CNS 4523, the instructor used exam 2 to assess SLO #12 Out of 44 students, 100% earned a 70% or better on those exams.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 94% of industry professionals indicated students met or exceeded expectations.

SLO #13 *Understand construction project control processes*

- Direct Assessment
  - In CNS 3823, the instructor used exam #1 and two homework assignments to assess SLO #13. Out of 54 students, 100% earned a 70% or better on these assessments.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 94% of industry professionals indicated students met or exceeded expectations.

SLO #14 *Understand the legal implications of contract, common and regulatory law to manage a construction project*

- Direct Assessment:
  - In CNS 4143, the instructor used a combination of two exams to assess SLO #14. Out of 45 students, 100% earned a 70% or higher on these exams.

- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 88% of industry professionals indicated students met or exceeded expectations.

SLO #15 *Understand the basic principles of sustainable construction*

- Direct Assessment:
  - In CNS 2363, the instructor used 17 questions on assignment #2 to assess SLO #15. Out of 94 students, 96% earned a 70% or higher on those questions.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO #16 *Understand the basic principles of structural behavior*

- Direct Assessment:
  - In CNS 4193, the instructor used an exam to assess SLO #16. Out of 53 students, 100% earned a 70% or higher on the exams.
- Indirect Assessment:
  - 100% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

SLO #17 *Understand the basic principles of mechanical, electrical, and piping systems*

- Direct Assessment:
  - In CNS 2433 the instructor used the midterm and final exams to assess SLO #17. Out of 73 students, 96% earned a 70% or higher on those exams.
  - In CNS 3443, the instructor used the mid-term and final exams to assess SLO #17. Out of 55 students, 89% earned a 70% or higher on those exams.
- Indirect Assessment:
  - 96% of students indicated they had confidence in applying the SLO.
  - 100% of industry professionals indicated students met or exceeded expectations.

By <u>direct</u> assessment methods, two SLO assessments did not meet the benchmark established. SLO #4 had 64% of students earn a 70% or higher on the assessment. And SLO #10 had 55% of students earn a 70% or higher on the assessment. For both of these SLO's (#4 & #10) students are directly assessed in a second class in their senior year. For both of these SLO's the benchmark was met in the subsequent assessment.
Although they are assessed again as seniors, the program continues to directly assess in two places as a means of monitoring these SLOs.
For SLO #4 in CNS-3533 The instructor has indicated that students expressed concerns about completing exams within the provided time and believes that working on more homework problems will increase their efficiency and thus their scores on the exams where assessment is taking place.
For SLO #10 in CNS-1111 The instructor has arranged for different speakers to address the topic.

By <u>indirect</u> assessment methods, all SLOs met the benchmark established.
In 2025, there was one instance where indirect assessment caused concern. SLO #6 had 93% of students indicating some level of confidence in applying the SLO, but only 68% were "confident" or "very confident" which would miss the benchmark. We believe that this was the result of using an adjunct faculty who taught this class for the first time and we are monitoring for next cycle.

2023-2024 cycle follow up – In the last cycle all direct assessment methods met the established benchmarks. Indirect assessment had five instances where assessment was below the benchmark in the industry professional survey. Faculty met and concluded that this was the result of how the industry survey was worded. The survey was revised to reflect that we were asking

about the skill level of a new graduate, not generally. This revision resulted in all benchmarks being met in the indirect assessment by industry survey.

2. Faculty Involved with the Program

The following table lists the faculty teaching in the program in the 2024/2025 academic year, as well as the SLOs assessed in their courses.

Course	Name	Instructor	ACCE SLO assessed
Fall 2024			
B.S. Construction Science			
CNS 1111	Introduction to Construction Mgmt.	Bigelow	10
CNS 2363	Materials and Forms	Bloom	15
CNS 2811	Construction Fundamentals Lab	Clinefelter	7, 12
CNS 2813	Construction Documents	Phillips	No ACCE SLO assessed
CNS 3103	Construction Surveying	Reyes	9
CNS 3443	MEP 2	Gaffney	17
CNS 3533	Cost Estimating	Ghosh	4,6
CNS 3881	Construction Safety	Phillips	3
CNS 4133	BIM for Constructors	McCuen	8
CNS 4403	Leadership in the Construction Ind.	Gaffney	No ACCE SLO assessed
CNS 4503	Residential Construction	Bloom	No ACCE SLO assessed
CNS 4512	Soils & Foundations	Marakah	No ACCE SLO assessed
CNS 4523	Pre-Construction Services	Bloom	10, 12
CNS 4853	Heavy Civil Construction	Gransberg	No ACCE SLO assessed
CNS 4970	Const. Analytics & Innovation	Asare	No ACCE SLO assessed

Spring 2025			
B.S. Construction Science			
CNS 1312	Computers in Construction	Asare	No ACCE SLO assessed
CNS 2133	Introduction to Housing	Bigelow	No ACCE SLO assessed
CNS 2433	Mechanical Systems	Gaffney	17
CNS 2833	Materials & Methods II	Bloom	7
CNS 3413	Construction Communication	Gaffney	2
CNS 3543	Project Planning & Scheduling	Phillips	5
CNS 3823	Project Controls Management	Reyes	11, 13
CNS 4143	Legal Issues in Construction	Laws	14
CNS 4193	Structures I	Shadravan	16
CNS 4213	Design Build Principles	McCuen	No ACCE SLO assessed
CNS 4623	Design + Build: Construction II	Bloom	No ACCE SLO assessed
CNS 4993	Construction Science Capstone	Phillips	1,4,5

Summer 2025			
B.S. Construction Science			
CNS 2133	Introduction to Housing	Ghosh	No ACCE SLO assessed
CNS 3943	Field Work	Bloom	No ACCE SLO assessed
CNS 4941	Field Work	Bloom	No ACCE SLO assessed

3. Direct Assessment of Student Learning Outcomes and Course Summaries

Instructors were asked to submit information to evaluate their courses and collect assessment data for SLOs. The following are the responses collected, organized by the course (Assessment information organized by SLO is provided in section 1):

(1) CNS 1111 – The instructor uses three quizzes covering chapters 1, 2, 4, & 5 from the textbook to assess SLO #10. Out of 110 students, 55% of students earned a 70% or better on these quizzes. The grade distribution in the course was: A – 53, B – 39, C – 12, D – 5, F – 7.
The instructor plans to: Continue refining the guest speaker line up in the course to ensure speakers are engaging. Also, although the benchmark was not met, because this is a freshman level course this SLO assessment is viewed primarily as a check.

(2) CNS 1312 – No SLOs are assessed in CNS-1312. Out of 72 students, the grade distribution in the course was: A – 32, B – 35, C – 5, D – 0, F – 0.
The instructor suggested: In the next offering, the Windows 101 session will be held on the first day of class instead of the third week. A key recurrence in the course across the two past offerings is that about 10%-15% are always behind on in-class assignments. To address this, video walkthroughs for each assignment, along with expectations for outputs, will be added to assignment briefs on Canvas. This will introduce an added layer of accountability on the students, as the most common excuse was not being able to follow what was taught in class. To further help students appreciate the value of what they are learning, I will explore the idea of having a roundtable discussion with industry experts or a guest lecture before assigning the term projects. This will help students have an idea of the expectations and workflows.

(3) CNS 2133 – No SLOs are assessed in CNS-2133. Out of 67 students, the grade distribution in the course was: A – 37, B – 18, C – 5, D – 1, F – 6.
No suggestions for improvement were provided.

(4) CNS 2363 – For SLO #15, the instructor uses 17 questions on assignment 2 to assess the SLO. Out of 94 students, 96% earned a 70% or higher on those questions. The grade distribution in the course was: A – 51, B – 37, C – 4, D – 0, F – 2.
No suggestions for improvement were provided.

(5) CNS 2433 – For SLO #17, the instructor uses the midterm and final exams to assess electrical and plumbing system knowledge. Out of 73 students, 96% earned a 70% or higher on those exams. The grade distribution in the course was: A – 43, B – 26, C – 4, D – 0, F – 0.
No suggestions for improvement were provided

(6) CNS 2811 – The instructor used a material submittal assignment to assess SLO #7. Out of 76 students in the course 90% earned a 70% or higher on the assignment. The instructor uses daily field reports assignment to assess SLO #12. Out of 76 students in the course 93% earned a 70% or higher on the assignments. The grade distribution in the course was: A – 50, B – 18, C – 7, D – 0, F – 1.
The instructor suggested the following improvement for next year: Ideally, templates used for field reports, safety reports, and materials reports should be standardized by the department. This will ensure that if they are used again in different courses, they can be consistent and help ensure that the concepts the department feels are important are covered in a manner that is best for the students.

(7) CNS 2813 – No SLOs are assessed in CNS 2813. Out of 89 students in the course, the grade distribution was: A – 21, B – 40, C – 21, D – 7, F – 0.
The instructor suggested the following improvement for next year: Going into the next offering of this course, it is time to find a new project set of documents to refresh the course.

(8) CNS 2833 – No SLOs are assessed in CNS 2833. Out of 113 students, the grade distribution in the course was: A – 46, B – 59, C – 6, D – 1, F – 1,

The instructor suggested bringing in a couple of industry professionals/trades.

(9) CNS 3103 – The instructor uses a combination of lab assignments and two exams to assess SLO #9. Out of 60 students 100% earned a 70% or higher on these assessments. The grade distribution in the course was: A – 40, B – 15, C – 5, D – 0, F – 0.
The instructor suggested the following improvement for next year: Having a teaching assistant that is familiar with surveying would make for significantly better lab experiences. I would like to have a graduate student that can help with logistics, grading, equipment sorting etc. "Continue the use of equipment to apply both basic and advanced surveying and layout techniques."

(10) CNS 3413 – The instructor used a presentation to assess SLO #2. Out of 58 students 98% earned a 70% or better on the presentations. The grade distribution in the course was: A – 55, B – 3, C – 0, D – 0, F – 0.
No suggestions for improvement were provided

(11) CNS 3443 – The instructor uses the mid-term and final exam to assess SLO #17. Out of 55 students, 89% earned a 70% or higher on the exams. The grade distribution in the course was: A – 43, B – 11, C – 1, D – 0, F – 0.
The instructor suggested the following improvement for next year (same as previous 3 years): Continue to engage mechanical systems professionals and leverage the information gathered to modify course to reflect industry position(s).

(12) CNS 3533 – The instructor uses questions #23-25 on the final exam to assess SLO #4. Out of 55 students 64% earned a 70% or better on the exams. The instructor uses a homework assignment to assess SLO #6. Out of 55 students 96% earned a 70% or higher on the homework. The grade distribution in the course was: A – 28, B – 23, C – 4, D – 0, F – 0.
The instructor suggested the following improvement for next year: It would be beneficial for the students to learn the basics of quantity takeoff before coming to this course.
Doing more in-class activities is always helpful. So, keep the number of in-class assignments same, but increase the number of homeworks.

(13) CNS 3543 – The instructor uses the midterm and final exam to assess SLO #5. Out of 54 students 100% earned a 70% or better on the exams. The grade distribution in the course was: A – 35, B – 16, C – 3, D – 0, F – 0.
The instructor suggested the following improvement for next year: Due to these complications with Microsoft Project and the unsuccessful resolution to the problem, a switch is being made to Primavera P6 scheduling software for the future sessions of the course.

(14) CNS 3823 – The instructor uses exam #1 & #2 to assess SLO #11. Out of 54 students 70% earned a 70% or better on these two exams. The instructor uses two homework assignments and exam #1 to assess SLO #13. Out of 54 students 100% earned a 70% or better on these assessments. The grade distribution in the course was: A – 17, B – 33, C – 4, D – 0, F – 0.
The instructor suggested the following improvement for next year: Use Procore for a class activity to create a proposed change order.

(15) CNS 3881 – The instructor uses the final project to assess SLO #3. Out of 44 students 100% earned a 70% or better on the projects. The grade distribution in the course was: A – 44, B – 0, C – 0, D – 0, F – 0.
The instructor suggested the following improvement for next year: This course could be incorporated into the overall Capstone course without much difficulty since safety plans are

an integral component of new project proposals.

(16) CNS 4133 – The instructor uses a project and final exam to assess SLO #8. Out of 44 students 100% earned a grade of 70% or better on the project and exam. The grade distribution in the course was: A – 27, B – 17, C – 0, D – 0, F – 0.
The instructor suggested the following improvement for next year:

- Increase student's knowledge about conceptual estimating
- Increase emphasis on construction phasing and work sequencing
- Require students to schedule a project from start to finish

(17) CNS 4143 –The instructor uses a combination of two exams (a midterm and a final) to assess SLO #14. Out of 45 students 100% met the benchmark, earning 70% or higher on the exams. The grade distribution in the course was: A – 8, B – 23, C – 14, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(18) CNS 4193 – The instructor uses an exam to assess SLO 16. Out of 53 students enrolled 100% earned a 70% or higher on this exam. The grade distribution in the course was: A – 28, B –10, C – 17, D – 1, F – 0.
The instructor did not have suggestions for improvement for next year.

(19) CNS 4213 - This course is an elective, as such SLOs are not assessed in this course. Out of 21 students enrolled, the grade distribution in the course was: A – 2, B –16, C – 3, D – 0, F – 0.
The instructor suggested the following improvement for next year: The DBIA course materials cannot be changed, however I would like to bring in one more certified DBIA professional to speak on topics related to the design-build project delivery method. Currently there is one guest speaker toward the end of the semester. I would like to have one early in the semester.

(20) CNS 4303 (Lean)– This course was not offered this year.

(21) CNS 4403 (Leadership) – This course is an elective, as such SLOs are not assessed in this course. Out of 13 students enrolled, the grade distribution in the course was: A – 13, B – 0, C – 0, D – 0, F - 1.
The instructor suggested the following improvement for next year (same as previous 2 years): Continue to research leadership and leverage the information gathered to modify course to reflect industry position(s).

(22) CNS 4503 (Residential)- This course is an elective, as such SLOs are not assessed in this course. Out of 27 students enrolled, the grade distribution in the course was: A – 27, B – 0, C – 0, D – 0, F – 0.

(23) CNS 4512 – No SLOs are assessed in this course. Out of 54 students the grade distribution in the course was: A – 32, B –12, C – 0, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(24) CNS 4523 –The instructor uses an essay to assess SLO #10. Out of 44 students 100% earned a grade of 70% or higher. The instructor uses two exams to assess SLO #12 Out of 44 students 100% of students earned a grade of 70% or higher. The grade distribution in the course was: A – 38, B – 6, C – 0, D – 0, F – 0.
The instructor suggested the following improvement for next year: have suggestions for improvement for next year. Going forward in this class I intend on utilizing more case

studies and problem based learning to better prepare the students for applied principles and processes in preconstruction they may encounter once they enter the work force fulltime.

(25) CNS 4623 (Design + Build II) - This course is an elective, as such SLOs are not assessed in this course. Out of 5 students enrolled, the grade distribution in the course was: A – 5, B – 0, C – 0, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(26) CNS 4853 – This course is an elective, as such SLOs are not assessed in this course. Out of 10 students enrolled, the grade distribution in the course was: A – 8, B – 2, C – 0, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(27) CNS 4993 – The instructor uses portions of the final project to assess SLOs #1, #4, & #5. For SLO #1, out of 44 students 100% earned a 70% or higher on the assessment. For SLO #4 100% of students met the benchmark of a 70% or higher. For SLO #5 100% of students met the benchmark of a 70% or higher. The grade distribution in the course was: A – 36, B – 7, C – 1, D – 0, F – 0.
Instructor plans to develop detailed rubrics for every deliverable package to more clearly define the expectations and not solely use comparison keys with no detailed explanations attached.

4. Indirect Assessment of Student Learning Outcomes Via Student Exit Surveys

Each graduating student was given an online departmental exit survey. Out of the 44 students who graduated in May 2025, 44 responses were collected. Accounting for a 100% response rate. Students were asked how confident they are in their ability to apply each SLO on a 4-point scale. The table below summarizes the student responses regarding each SLO. An average score out of 4 is provided as well as the number of responses for each level of confidence ("Very Confident", "Confident", "Somewhat Confident", and "Not Confident")

SLO	Average	Very Confident	Confident	VC & C %	Somewhat Confident	Not Confident
#1 Written Communication	3.8	34	9	98%	1	0
#2 Oral Presentations	3.8	34	9	98%	1	0
#3 Safety Plan	3.4	21	20	93%	3	0
#4 Cost Estimates	3.1	13	20	75%	11	0
#5 Project Schedules	2.9	12	18	68%	11	3
#6 Ethics	3.7	30	13	98%	1	0
#7 Materials & Methods	3.3	21	17	86%	6	0
#8 Electronic Technology	3.5	25	15	91%	3	1
#9 Surveying	3.3	18	19	84%	7	0
#10 Project Delivery	3.6	24	20	100%	0	0
#11 Acct. & Cost Control	3.2	15	23	86%	5	1
#12 QA/QC	3.4	18	25	98%	1	0
#13 Project Control	3.3	17	25	95%	2	0
#14 Legal	3.2	13	28	93%	3	0
#15 Sustainable	3.2	16	22	86%	6	0
#16 Structural Principles	3.1	14	21	79%	9	0
#17 MEP	3	13	21	77%	8	2

Individually, over 70% of students indicated some level of confidence in applying all 17 SLOs. Further, an average score of 2.8 would be equal to 70% and all SLOs had a 2.9 or higher. As such, there are no concerns based on indirect assessment of students. The program does note that SLO #5 only 68% of students indicate “Confident” or “Very Confident” and will monitor this SLO in the next cycle.

2023-2024 cycle follow up. There were no concerns or SLOs that did not meet the benchmarks in 2023-2024, so there are no items to report as follow up.

5. Indirect Assessment of Student Learning Outcomes via Industry/Alumni Surveys

A sample of 18 industry representatives were surveyed. Representatives were asked if the graduates they had hired from the program meet their expectations on a five point scale, as it relates to each of the 17 ACCE SLOs. The table below summarizes the responses collected. The number of responses for each option (“Far Exceeded Expectations”; “Exceeded Expectations”; “Meets Expectations”; “Below Expectations”; “Far Below Expectations”) are provided as well as the average score and the percentage of scores of 3 and higher. To avoid fatigue, the employer survey is conducted every 3 years. This data was collected in Spring 2025.

SLO	Avg.	Scores 3+	5 – Far Exceeds	4 – Exceeds	3 – Meets	2 – Below	1 – Far Below
#1 Written Comm.	4.17	18 (100%)	5	11	2	0	0
#2 Oral Presentations	4.17	18 (100%)	6	9	3	0	0
#3 Safety Plan	3.81	18 (100%)	5	3	8	0	0
#4 Cost Estimates	3.59	17 (94%)	2	7	7	1	0
#5 Project Schedules	3.56	18 (100%)	2	5	9	0	0
#6 Ethics	4.29	18 (100%)	7	8	2	0	0
#7 Materials & Methods	4.06	18 (100%)	5	8	4	0	0
#8 Apply Technology	4.24	18 (100%)	7	7	3	0	0
#9 Surveying	3.41	17 (94%)	2	4	10	1	0
#10 Project Delivery	4.00	18 (100%)	5	7	5	0	0
#11 Accounting & CC	3.59	15 (83%)	3	7	4	3	0
#12 Quality Assurance	3.76	17 (94%)	4	6	6	1	0
#13 Project Controls	3.76	17 (94%)	5	4	7	1	0
#14 Legal	3.53	16 (89%)	3	5	7	2	0
#15 Sustainability	3.59	18 (100%)	3	4	10	0	0
#16 Structural Principles	3.88	18 (100%)	3	9	5	0	0
#17 MEP	3.71	18 (100%)	3	6	8	0	0

All SLO’s met the established benchmarks, both by the average score and the number of individual responses that met expectations or above.
The last survey in 2023 had multiple SLO’s that did not meet the benchmark, but also indicated that industry professionals were overwhelmingly satisfied with the graduates they had hired. Due to this inconsistency, the faculty determined the survey language should be revised. For the 2025 survey, language was revised and the improved results suggest that was in fact the deficiency in previous years.

2023-2024 cycle follow up. Indirect assessment by industry survey had five instances where SLOs were below the benchmark. Faculty met and concluded that this was the result of how the industry survey was worded (internal validity). The survey was revised to reflect that we were asking about their expectations of a new graduate’s skills, not generally. This revision resulted in

all benchmarks being met in the indirect assessment by industry survey.

7. Strategic Plan Progress

In February 2021 the strategic plan adopted in May 2019, by the Division, was revised. This summarizes the progress towards those efforts in the 2023/2024 year. In 2025 a new strategic plan has been adopted, triggering the sunsetting of this one.

Division (1)

Goal 1: We will focus on construction industry relevance and strong relationships, producing a diverse group of graduates that add value to their employers. *(3 Objectives)*

Objective 1.1: Ensure the long-term strength of the division through endowments that facilitate faculty and student success.

Strategy: The Division Director with the Dean's office will facilitate the administration of a fund-raising program that meets the operational needs of the division, faculty, and students.

1. Fall 2019 - Create an inventory of operational and academic needs
2. Fall 2019 – Set goals for new and existing endowments
3. Spring & Summer 2020 - Identify potential contributors to endowments
4. Fall 2020 - Publish the operational needs of the department to the slate of potential contributors.

Metrics: By Spring 2025 the strategy items have been accomplished.

This objective was been met but is ongoing. The College advancement officer (Josh Hall) has a list of the division's fundraising priorities which he shares with donors. Two new scholarship were created and funded at $30k each, additional contributions were made to two others, and commitments are in place for two more. A real estate gift was made in 2024/25 valued at three to four million dollars. When the OU Foundation sells that property, the proceeds will benefit the Division in multiple ways. The hiring of Josh Hall two years ago has had a significant impact on the Division's fund raising.

Objective 2.1: Maintain an effective online presence to market our brand to current, former, and prospective students as well as construction companies and the public at large about the division.

Strategy: The Division faculty will facilitate and maintain an effective and up to date web-based presence for the department via the website and social media.

1. At the beginning of each semester faculty will review the website for accuracy and necessary updates.
2. Fall 2019 – All faculty will be given administrative access to division social media accounts so updates can be made by any faculty member.
3. Spring 2020 – Faculty will determine if additional social media accounts should be established.

Metrics: By Summer 2021 the department will be consistently evaluating the website, and making weekly social media posts.

This objective has been met and is ongoing. The faculty has reviewed the website for updates as planned, and faculty with social media accounts have access to the division accounts. The faculty decided in 2022 that our social media presence would be limited to Linked In. In the last year over 77 posts were made. Down slightly from 86 the year before but far exceeding the goal of 52 (1 per week).

Objective 3.1: Facilitate opportunities for students to interact with construction industry professionals, especially Professional Advisory Board (PAB) member companies.

Strategy: The Director and faculty will plan and execute opportunities to engage construction industry professionals within the program.

1. Continue hosting summer luncheons for PAB members in OKC and DFW.
2. Continue hosting annual golf tournament in Norman & TopGolf in DFW for any construction industry professional.
3. Continue hosting career fairs each semester.
4. Include at least one guest speaker from the construction industry in 50% of CNS course each semester.

Metrics: The PAB consistently has 20 dues-paying members.
Every student will have at least 6 opportunities to interact with industry professionals each year.

This objective has been partially met.
The PAB has 38 dues paying members. Students had more than a dozen opportunities to interact with industry. Summer luncheons have not been held since 2023, due to low attendance, the PAB is considering shifting to a happy hour model. The DFW TopGolf event was held again, and a reception for students and PAB companies was held the evening before the career fair. Both career fairs were held in person. 30% of classes utilized a guest speaker, down from 32% last year, but not yet at the goal of 50%.

Undergraduate (2)
Goal 2: We will provide an educational experience for students to develop the knowledge and skills to be a contributing construction professional. *(4 Objectives)*

Objective 1.2: Maintain consistent teaching assignments for faculty

Strategy: The Division Director will keep faculty teaching assignments consistent to facilitate the continued development and improvement of courses by faculty.

1. Any changes in teaching assignments will include feedback from the faculty involved.
2. Changes in teaching assignments will originate with discussion between all faculty affected
3. The director will include discussion about teaching assignments in annual evaluation meetings

Metrics: By Spring 2020 the division will have made any necessary curricular changes and teaching assignments made will be held consistent through 2024.

Overall this objective has been met. However, the division has implemented a growth plan that resulted in some teaching assignment changes as additional course sections have been added. The primary change was from faculty teaching two or more distinct courses each semester to teaching two sections of the same course. Faculty input was sought and used to inform teaching assignments to provide faculty with their preferred courses.

Objective 2.2: Maintain accreditation, and submit annual OU assessment materials.

Strategy: The Division Director will oversee the collection of assessment material to ensure appropriate data is available for the accreditation process.

1. Spring 2019 – submit reaccreditation self-study.
2. In Fall 2019 – reaccreditation visit.
3. In 2020 curricular changes will be assessed by the faculty and decisions made regarding changes deemed necessary.
4. Every Fall semester – Submit OU assessment report.
5. Respond with Interim Reports as required by accreditation body.

Metrics: Accreditation is maintained and OU assessment metrics meet or exceed expectations in all categories.

To date this objective has been met. Ongoing assessment reports to OU and ACCE have been submitted and are in process yearly (as evidenced by this report). Our reaccreditation visit was in the Spring of 2025. The team identified some weaknesses but no deficiencies, so it is anticipated that reaccreditation will be granted.

Objective 3.2: Introduce and apply currently used technology in the construction industry to our students.

Strategy: The faculty will facilitate the integration of technology in their courses.

1. Ongoing - Facilitate professional development and provide technology support to faculty to ensure a baseline proficiency in technology.
2. 2020 - Each faculty will identify opportunities for technology integration and implementation in their courses.

Metrics: Faculty will report back in subsequent faculty meetings what they did and their perception of the outcome.

This objective has been met and is ongoing. In 2020 faculty reported back on their technology usage in class. Coordination of classes has been a subject of faculty meetings and is ongoing. Multiple faculty have attended professional development related to technology and Dr. Asare, is offering a new class focused on tech usage in construction. In 2024/25 one faculty completed training in AI, and five others did some (started but did not complete all) of the training in AI.

Objective 4.2: Continue to provide project-based courses within the curriculum and encourage interdisciplinary collaboration.

Strategy: An environment conducive to interdisciplinary collaboration and project-based courses will be maintained with the Director following up with faculty regarding collaboration and projects in their individual courses.

1. 3000 level and above CNS courses will be limited to 40 students.
2. GA/TA support will continue to be provided.
3. Faculty will maintain Industry involvement to secure projects

Metrics: Students will have at least 6 project-based CNS courses.
Students will have multiple points of interdisciplinary collaboration.

This objective was partially met. Upper level classes had 35-44 students this year, and except with two exceptions are capped at 35 in 2025/26. Graduate assistants have been provided, and more than six courses are project based. Further, each faculty is uniquely engaged with the construction industry.

Research and Scholarly Activity (3)

Goal 3: We will advance the body of knowledge related to the AEC industry. *(2 Objectives)*

Objective 1.3: Improve the scholarly output of graduate students.

Strategy: An elevation of expectation for graduate student productivity will be prioritized.

1. Each Fall – New students will complete a research methods course and identify a potential topic for their thesis or special study project that is aligned with a faculty member's research interest.
2. Ongoing – Graduate student projects and/or thesis will be submitted to a peer reviewed publication.

Metrics: Faculty meet at least half of their annual research expectations through their graduate student advising.

This objective is ongoing. The research methods course has been moved to Spring, but all graduate students are taking it. In 2024/25, eleven graduate student projects were submitted for publication Including four to journals.

Objective 2.3: Continue production of publications in peer-reviewed venues and regular submissions of proposals for external funding.

Strategy: The Director will facilitate the administration of a more productive scholarship environment.

1. 2020 – Establish an incentive program for increased research productivity.
2. Yearly – The Director will meet with faculty to discuss their personal scholarship goals.

Metrics: Tenure/tenure-track faculty shall publish in peer reviewed journals on an annual basis. Division will secure at least $100k/year in external funding.

This objective is partially met and ongoing. The incentive program was implemented in 2021. Approximately $297,000 across four projects was awarded to faculty in external grants this year. Most were multi-year awards.

Service (4)

Goal 4: We will engage with regional and national professional and academic organizations related to the construction industry. *(1 Objectives)*

Objective 1.4:
Faculty will serve in leadership positions with professional and/or external academic organizations.

Strategy: Identify organizations with which to engage

1. Ongoing – Faculty engage with organizations through meeting and conference attendance
2. Ongoing – faculty serve on committees
3. Ongoing – faculty seek leadership roles on the committees in which they serve
4. Yearly – The director will meet with faculty to discuss their progress towards this goal

Metrics: Each year, at least one faculty member is serving in a leadership role on a committee or with an organization.

This objective has been met and is ongoing. Each faculty member is engaged with a professional

organization and Dr. McCuen is serving on two national level boards.

----- END OF REPORT -----