Haskell & Irene Lemon Construction Science Division

SLO Assessment Outcomes & Strategic Plan Progress

2023-2024 academic year

This document serves as the assessment report for the Bachelor of Science – Construction Science program for the 2023/2024 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 June 2023.
As of Fall 2023, the Division had 320 students, and in May of 2024 graduated 40 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, faculty teaching each course, and SLOs assessed in the courses
3. **Course Materials** – A listing of courses for which assessment materials were submitted
4. **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.
5. **Indirect Assessment of Student Learning Outcomes Via Student Exit Surveys** – Results of student exit surveys regarding SLOs.
6. **Indirect Assessment of Student Learning Outcomes Via Industry/Alumni Surveys** – Results of industry/alumni surveys regarding student competence with SLOs.
7. **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. The Division of Construction Science Undergraduate Assessment and Academic Quality Plan (approved by faculty 6/23) establishes a target 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*

- In CNS 4993, the instructor uses a project activity hazard analysis assignment to assess SLO #1. Out of 40 students the average student grades was 100%,
- Indirect assessment of students resulted in an average score of 3.81 (95.3%)
- Indirect assessment of industry professionals resulted in a score of 100%.

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

- In CNS 3413, the instructor used three project presentations to assess SLO #2. Out of 44 students the average score was 98.7%.
- Indirect assessment of students resulted in an average score of 3.63 (90.75%).
- Indirect assessment of industry professionals resulted in a score of 81%.

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

- Due to a revision in curriculum, CNS 3881 was not offered in the 2023/24 year. So direct assessment data is not available.
- Indirect assessment of students resulted in an average score of 3.52 (88%).
- Indirect assessment of industry professionals resulted in a score of 66%.

SLO#4: *Create construction project cost estimates*

- In CNS 3533, the instructor used question #22 & 23 on the final exam to assess SLO #4. Out of 45 students the average score on this question was 77.5%.
- In CNS 4993, the instructor used a portion a project cost estimate assignment to assess SLO #4. Out of 40 students the average grade for that portion of the project was 98%.

- Indirect assessment of students resulted in an average score of 3.07 (76.75%).
- Indirect assessment of industry professionals resulted in a score of 63%.

SLO #5: *Create construction project schedules*

- In CNS 4993, the instructor used a portion of a project to assess SLO #5. Out of 40 students the average grade for that portion of the project was 100%.
- Indirect assessment of students resulted in an average score of 2.96 (74%).
- Indirect assessment of industry professionals resulted in a score of 72%.

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

- In CNS 3533, the instructor used a homework assignment to assess SLO #6. Out of 45 students the average grades was 95%.
- Indirect assessment of students resulted in an average score of 3.59 (89.75%).
- Indirect assessment of industry professionals resulted in a score of 72%.

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

- In CNS 2833, the instructor used assignment #9 to assess SLO #8. Out of 73 students, the average grade was 94%.
- In CNS 2811, the instructor used a material submittal assignment to assess SLO #8. Out of 53 students the average grade was 89%.
- Indirect assessment of students resulted in an average score of 3.52 (88%).
- Indirect assessment of industry professionals resulted in a score of 80%.

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

- In CNS 4133, the instructor used in class activities, homework, and the final project to assess SLO #8. Out of 40 students the average score on the class activities and homework was 93%, the average score on the project was 94%. The overall average was 93.5%.
- Indirect assessment of students resulted in an average score of 3.74 (93.5%).
- Indirect assessment of industry professionals resulted in a score of 100%.

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

- In CNS 3101, the instructor used a combination of 10 lab assignments and two exams to assess SLO #9. Out of 39 students the average score was 93.87%.
- Indirect assessment of students resulted in an average score of 3.11 (77.75%).
- Indirect assessment of industry professionals resulted in a score of 60%.

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

- In CNS 1111, the instructor used quizzes 1, 5, and 12 to assess SLO #10. Out of 78 students, the average grade on the three quizzes was: 77.67%.
- In CNS 4523, the instructor uses the first exam to assess SLO #10. Out of 43 students the average grade for these activities was 86%.
- Indirect assessment of students resulted in an average score of 3.59 (89.75%).
- Indirect assessment of industry professionals resulted in a score of 80%.

SLO #11 *Understand construction accounting and cost control*

- In CNS 3823 the instructor used a combination of homework and two exams to assess SLO #11. Out of 41 students the average grade on these materials was 84.1%
- Indirect assessment of students resulted in an average score of 2.93 (73.25%).
- Indirect assessment of industry professionals resulted in a score of 53%.

SLO #12 *Understand construction quality assurance*

- In CNS 2811, the instructor used a daily field report assignment to assess SLO #12. Out of 53 students the average grade was 95%.
- In CNS 4523, the instructor used exam 2 to assess SLO #12 Out of 43 students the average grade on these activities was 99%.
- Indirect assessment of students resulted in an average score of 3.26 (81.5%).

- Indirect assessment of industry professionals resulted in a score of 73%.

SLO #13 *Understand construction project control processes*

- In CNS 3823, the instructor used exam #1 and homework assignments to assess SLO #13. Out of 41 students the average grade on these activities was 91.83%.
- Indirect assessment of students resulted in an average score of 3.41 (85.25%).
- Indirect assessment of industry professionals resulted in a score of 73%.

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

- In CNS 4143, the instructor used a combination of two exams (a midterm and a final) to assess SLO #14. Out of 41 students the average score on the two exams was 81.83%.
- Indirect assessment of students resulted in an average score of 3.07 (76.75%).
- Indirect assessment of industry professionals resulted in a score of 60%.

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

- In CNS 2363, the instructor used 17 questions on assignment #2 to assess SLO #15. Out of 69 students the average grade on the assignment was 95.5%.
- Indirect assessment of students resulted in an average score of 3.41 (85.25%).
- Indirect assessment of industry professionals resulted in a score of 93%.

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

- In CNS 4193, the instructor used all graded assignments in the course to assess SLO #16. Out of 47 students enrolled the average grade was 87.13%.
- In CNS 4512, the instructor used all graded assignments in the course to assess SLO #16. Out of 40 students enrolled the average grade was 92.25%.
- Indirect assessment of students resulted in an average score of 3.07 (76.75%).
- Indirect assessment of industry professionals resulted in a score of 87%.

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

- In CNS 2433 the instructor used the midterm and final exams to assess SLO #17. Out of 56 students, the average grade on the exams was 91%.
- In CNS 3443, the instructor used the mid-term and final exams to assess SLO #17. Out of 45 students the average grade on these exams was 90.5%.
- Indirect assessment of students resulted in an average score of 3.07 (76.75%).
- Indirect assessment of industry professionals resulted in a score of 73%.

By direct assessment methods, all SLOs met the benchmark established.

SLO assessment by indirect methods resulted in five instances where assessment was below the benchmark, all were from the Industry Professionals Survey (The student survey did not result in any SLO's below the benchmark). Those SLOs include:

- SLO #4: Create construction project cost estimates, IP survey score was 67% and student survey score was 68.25%
- SLO #5: Create construction project schedules, IP survey score was 60%
- SLO #11: Apply basic surveying techniques for construction layout and control, IP survey score was 60%
- SLO #14 Understand construction accounting and cost control, IP survey score was 53%
- SLO #17 Understand the legal implications of contract, common and regulatory law to manage a construction project, IP survey score was 60%

Industry professionals were hard in their evaluation of student preparedness in specific areas, but a subsequent question on the survey asked: "In general I am satisfied with the graduates my company has hired from the Construction Science program at the University of Oklahoma" and 14/15 indicated they "strongly agree". Because benchmarks were met in all other methods of assessment, no immediate action is planned. The industry survey is not collected every year to avoid fatigue and is scheduled to be done this year.

2. Faculty Involved with the Program

The following table lists the faculty teaching in the program in the 2023/2024 academic year, as well as the SLOs assessed in their courses.

Course	Name	Instructor	SLO assessed/Notes
Fall 2023			
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	Chavan/Ghosh	No 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	n/a	3
CNS 4133	BIM for Constructors	McCuen	8
CNS 4403	Leadership in the Construction Ind.	Gaffney	No SLO assessed
CNS 4503	Residential Construction	Bloom	No SLO assessed
CNS 4512	Soils & Foundations	Marakah	16
CNS 4523	Pre-Construction Services	Bloom	10, 12
CNS 4853	Heavy Civil Construction	Gransberg	No SLO assessed

Spring 2024			
CNS 1312	Computers in Construction	Asare	No SLO assessed
CNS 2133	Introduction to Housing	Bigelow	No 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	Mujtaba	16
CNS 4213	Design Build Principles	McCuen	No SLO assessed
CNS 4303	Lean Construction Management	Ghosh	No SLO assessed
CNS 4603	Design + Build: Construction	Bloom	No SLO assessed
CNS 4993	Construction Science Capstone	Gaffney	1,4,5

Summer 2023			
CNS 2133	Introduction to Housing	Ghosh	No SLO assessed
CNS 3943	Field Work	Bloom	No SLO assessed
CNS 4940	Field Work	Bloom	No SLO assessed

3. Course Materials

Course materials are collected each year. The following is a summary of the materials collected in the 2023/24 academic year.

Course materials were collected from 26 courses in 2023/24. The following is the list of courses for which course materials were received:

Fall 2023: CNS 1111, CNS 2363, CNS 2911, CNS 2813, CNS 3103, CNS 3443, CNS 3533, CNS 4133, CNS 4403, CNS, 4503, CNS 4512, CNS 4523, CNS 4853 (13 courses).

Spring 2024: CNS1312, CNS 2133, CNS 2433, CNS 2833, CNS 3413, CNS 3543, CNS 3823, CNS 4143,

CNS 4193, CNS 4213, CNS 4303, CNS 4603, CNS 4993, (13 courses).

Total number of courses for which course materials were not collected for the 2023/2024 academic year 0.

All course materials are available in electronic format. The following are typical materials collected for each course. If courses have not substantially changed, items iii through vii are not required each year.

I. ACCE SLO Summary Form
II. CNS Division Course Summary Form
III. Course Syllabus (following University of Oklahoma requirements)
IV. Course lectures or other presentation materials
V. Course assignments and tests with grading rubrics or keys
VI. 1 example of student work for each assignment (student names removed)
VII. Any other materials the instructor deems appropriate to include

4. 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 quizzes 1, 5, and 12 to assess SLO #10. Out of 78 students, the average grade on the quizzes was: 77.67%. The grade distribution in the course was: A – 47, B – 18, C – 4, D – 5, F – 4.
The instructor did not have suggestions for improvement

(2) CNS 1312 – No SLOs are assessed in CNS-1312. Out of 58 students, the grade distribution in the course was: A – 41, B – 15, C – 2, D – 0, F – 0.
The instructor suggested the following: In the next go around, the time spent on external tutorials will be reduced while maintaining the certification benefits. To make up for this, topic-specific tutorial videos will be made available on Canvas to guide students in their learning outside of the classroom. It was evident that they took the tutorials for the grades and not for learning, but benefitted more from the few video tutorials that were provided.

(3) CNS 2133 – No SLOs are assessed in CNS-2133. Out of 121 students, the grade distribution in the course was: A – 28, B – 25, C – 7, D – 2, F – 4.
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 69 students, the average grade was 95.5%. The grade distribution in the course was: A – 27, B – 28, C – 8, D – 3, F – 3.
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 56 students, the average grade was 91%. The grade distribution in the course was: A – 39, B – 10, C – 6, D – 0, F – 1.
The instructor suggested the following improvement for next year (same as previous 2 years): Continue to engage electrical and plumbing systems professionals and leverage the information gathered to modify the course to reflect industry position(s).

(6) CNS 2811 – The instructor used a material submittal assignment to assess SLO #7. Out of 53 students in the course the average grade was 89%. The instructor uses daily field report assignment to assess SLO #12. Out of 55 students the average grade was 95%. The grade distribution in the course was: A – 48, B – 5, C – 0, D – 0, F – 0, W - 2.
The instructor suggested the following improvement for next year: No suggestions provided

(7) CNS 2813 – No SLOs are assessed in CNS 2813. The grade distribution in the course was: A – 23, B – 25, C – 11, D – 2, F – 0.
The instructor suggested the following improvement for next year: We have been using the same project

for a few years now. We need to pick up a new project for next year.

(8) CNS 2833 – The instructor uses assignment 9 to assess SLO #7. Out of 73 students the average grade on exam #1 was 94% The grade distribution in the course was: A – 23, B – 42, C – 7, D – 0, F – 1,
No suggestions for improvement were provided.

(9) CNS 3103 – The instructor uses a combination of lab assignments and two exams to assess SLO #9. Out of 39 students the average score from these labs and exams was 93.87%. The grade distribution in the course was: A – 26, B – 11, C – 2, D – 0, F – 0.
The instructor suggested the following improvement for next year: "Continue the use of equipment to apply both basic and advanced surveying and layout techniques."

(10) CNS 3413 – The instructor used three presentations to assess SLO #2 Out of 44 student the average grade was 98.7%. 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: Continue to research materials and leverage the information gathered to modify course to reflect industry position(s).

(11) CNS 3443 – The instructor uses the mid-term and final exam to assess SLO #17. Out of 45 students the average grade on the exams was 91%. The grade distribution in the course was: A – 25, B – 15, C – 1, D – 0, F – 0.
The instructor suggested the following improvement for next year (same as previous 2 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 #22 & 23 on the final exam to assess SLO #4. Out of 45 students the average score was 77.5%. The instructor uses a homework assignment and a quiz to assess SLO #6. Out of 45 students, the average grade on these assignment was 95%. The grade distribution in the course was: A – 21, B – 21, C – 3, D – 0, F – 0.
The instructor suggested the following improvement for next year (same suggestion as last 2 years): Doing more in-class activities is always helpful. This is more so as some of the concepts are completely new to them. So, working on them before being assigned homework are helpful. However, there is a limit to how much activities can be fitted in the scheduled times.

(13) CNS 3543 - The grade distribution in the course was: A – 41, B – 3, C – 0, D – 0, F – 0.
The instructor suggested the following improvement for next year: In the future I would like to link more of the work to actual projects and spend more time in the software based on feedback this year from the students. Also, I would like to do a little more with calculating and figuring actual production rates.

(14) CNS 3823 – The instructor uses a combination of homework and two exams to assess SLO #11. Out of 41 students the average grade on these materials was 84.1%.
The instructor uses multiple homeworks and exam #1 to assess SLO #13. Out of 41 students the average grade was 91.83%. The grade distribution in the course was: A – 17, B – 19, C – 8, D – 0, F – 0.
The instructor suggested the following improvement for next year: Use some of the mobile technology features in Procore to mimic what they will do in the first several months of their time on site . specifically, do some closeout. and RFI activities with the mobile app.

(15) CNS 3881 – The instructor uses the final project to assess SLO #3. Due to moving this class in our curriculum, it was not offered this year and thus has no assessment data.

(16) CNS 4133 – The instructor uses in class activities, homework, and the final project to assess SLO #8. Out of 40 students the average score on the class activities and homework was 93%, the average score on the project was 94%. The overall average was 93.5%. The grade distribution in the course was: A – 25, B – 13, C – 2, D – 0, F – 0.
The instructor suggested the following improvement for next year (same as last 2 years):
1-Increase student's knowledge about conceptual estimating

2-Increase emphasis on construction phasing and work sequencing
3-Redistribute major assignments over the entire semester

(17) CNS 4143 –The instructor uses a combination of two exams (a midterm and a final) to assess SLO #14. Out of 41 students the average score on the two exams was 81.83%. The grade distribution in the course was: A – 3, B – 22, C – 16, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(18) CNS 4193 – The instructor uses all graded assignments in the course to assess SLO 16. Out of 47 students enrolled the average grade was 87.13%. The grade distribution in the course was: A – 19 B –10, C – 10, D – 2, 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 – 4, B –14, 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 or two DBIA professionals to speak on topics related to the design-build project delivery method.

(20) CNS 4303 (Lean)– This course is an elective, as such SLOs are not assessed in this course. Out of 23 students enrolled, the grade distribution in the course was: A – 21, B – 2, C – 0, D – 0, F - 0.
The instructor suggested the following improvement for next year: The small group projects were assigned to foster peer learning. What happened was one/two members doing all the work. I have to come up with a way so that everyone is involved/engaged in the projects. I might assign more specific roles to the team members, form smaller teams, or change the team composition for every project.

(21) CNS 4403 (Leadership) – This course is an elective, as such SLOs are not assessed in this course. Out of 12 students enrolled, the grade distribution in the course was: A – 12, B – 0, C – 0, D – 0, F - 1.
The instructor suggested the following improvement for next year (same as previous year): 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 4523 –The instructor uses the first exam and a collaboration exercise to assess SLO #10. Out of 43 students the average grade on these activities was 86%. The instructor uses the exam 2 to assess SLO #12 Out of 43 students the average grade on the exam was 99%. The grade distribution in the course was: A – 42, B – 1, C – 0, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(24) CNS 4512 – The instructor uses all graded assignments in the course to assess SLO #16. Out of 40 students enrolled the average grade was 92.25%. The grade distribution in the course was: A – 31, B –7, C – 2, D – 0, F – 0.
The instructor did not have suggestions for improvement for next year.

(25) CNS 4603 (Design + Build) - This course is an elective, as such SLOs are not assessed in this course. Out of 14 students enrolled, the grade distribution in the course was: A – 14, 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 19 students enrolled, the grade distribution in the course was: A – 12, B – 0, C – 1, D – 0, F – 0, W - 1.
The instructor did not have suggestions for improvement for next year.

(27) CNS 4993 – The instructor uses portions of the three different projects to assess SLOs #1, #4, & #5. For SLO #1, out of 40 students the average grade was 100%. For SLO #4 the average grade was 98%. For SLO #5 the average grade was 100%. The grade distribution in the course was: A – 39, B – 1, C – 0, D – 0, F – 0.
Instructor offered the same suggestion for improvement as last year (same as last year): Continue to research materials and leverage the information gathered to modify course to reflect industry position(s).

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

Each graduating student was given an online departmental exit survey. Out of the 40 students who graduated in May 2024, 28 responses were collected. Accounting for a 70% 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	Somewhat Confident	Not Confident
#1 Written Communication	3.81	22	5	0	0
#2 Oral Presentations	3.63	12	8	1	3
#3 Safety Plan	3.52	16	9	2	0
#4 Cost Estimates	3.07	9	12	5	1
#5 Project Schedules	2.96	8	11	7	1
#6 Ethics	3.59	13	9	1	0
#7 Materials & Methods	3.52	14	13	0	0
#8 Electronic Technology	3.74	20	7	0	0
#9 Surveying	3.11	9	12	6	0
#10 Project Delivery	3.59	17	9	1	0
#11 Acct. & Cost Control	2.93	6	15	4	2
#12 QA/QC	3.26	11	12	4	0
#13 Project Control	3.41	13	12	2	0
#14 Legal	3.07	8	13	6	0
#15 Sustainable	3.41	13	12	2	0
#16 Structural Principles	3.07	6	17	4	0
#17 MEP	3.07	9	13	3	2

An average score of 2.8 would be equal to 70%. In 2023/24, there were no average scores below 2.8. The lowest scores came for SLO's #5 and #11 at 2.96 and 2.93 respectively. As such there are no concerns based on indirect assessment of students.

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

A sample of 32 industry representatives were surveyed. Representatives were asked to rate the performance of graduates they had hired on each of the 17 student learning outcomes. The table below summarizes the responses collected. The number of responses for each option ("Very good", "Good", "Poor", "Very Poor") are provided as well as the average score and the percentage of scores of 3 or 4. To avoid fatigue, the employer survey is conducted every 3 years. This data was collected in 2023.

SLO	Average	Scores 3+	4- Very Good	3- Good	2- Poor	1- Very Poor
#1 Written Communication	3.31	100%	10	22	0	0
#2 Oral Presentations	3.09	81%	9	17	6	0
#3 Safety Plan	2.75	66%	4	17	10	1
#4 Cost Estimates	2.75	63%	5	15	11	1
#5 Project Schedules	2.84	72%	5	18	8	1

#6 Ethics	3.28	88%	13	15	4	0
#7 Materials & Methods	3.19	81%	12	14	6	0
#8 Apply Technology	3.63	100%	20	12	0	0
#9 Surveying	2.72	56%	6	12	13	1
#10 Project Delivery	3.23	78%	13	12	6	0
#11 Accounting & CC	2.67	59%	5	14	11	2
#12 Quality Assurance	2.91	75%	6	18	7	1
#13 Project Controls	3.06	84%	7	20	5	0
#14 Legal	2.72	59%	4	15	13	0
#15 Sustainability	3.13	84%	9	18	5	0
#16 Structural Principles	2.97	78%	6	19	7	0
#17 MEP	2.94	78%	5	20	7	0

Five assessment measures were below the 70% benchmark based on the average, including SLO #3, #4, #9, #11, & #14. However, representatives were also asked: "In general are you satisfied with the graduates you have hired from our program?" An average score of 3.91 resulted, with all respondents agreeing, and 29 out of 32 (91%) "strongly agreed" with this question. Based on these results, the faculty have determined that the survey language needs to be revised in the next iteration as the SLO's below average may an internal validity issue.

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.

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 has been met and is ongoing. The College advancement officer (Josh Hall) has a list of the division's fundraising priorities which he shares with donors. One new scholarship has been created and funded at $100k, additional contributions were made to another, a third's funding was completed, and a three more have commitments and have agreements in place (2 of the 3 should be fully funded before the end of 2024). A potential gift worth over seven figures is currently being evaluated and would also generate scholarships as well as meeting other needs.

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 partially 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 our presences would be limited to Linkedin on social media. In the last year over 86 posts were made, 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 was partially met.
The PAB has well over 20 members. Students had more than a dozen opportunities to interact with industry. Summer luncheons for the PAB were held in May of 2023. The DFW TopGolf event was held, and a reception for students and PAB companies was held the evening before the career fair. Both career fairs were held in person. 32% of classes utilized a guest speaker, the same as the previous year, but not yet at the goal of 50%.

Objective 4.1: Advance underrepresented groups in the construction industry.

Strategy: The Director and faculty will incorporate materials focused on advancing underrepresented groups in CNS courses

1. Introduce all students to the AGC Culture of Care Pledge.
2. Use the AGC's Culture of Care Toolbox series in multiple classes.
3. Produce "spotlights" on individuals from underrepresented groups in construction leadership positions to be displayed around Gould Hall.
4. At least 25% of guest speakers in CNS classes will be from underrepresented groups or Disadvantaged Business Enterprise (DBE) designated firms.

Metrics: All upper level CNS students are exposed to 3 modules of Diversity Equity and Inclusion instruction and/or discussion related to the construction industry in class as well as informally.

This objective has been partially met and is ongoing. Due to the law passed by the State of Oklahoma, this objective has been revised advancing "underrepresented groups". The AGC Culture of Care has been introduced in CNS 1111. Spotlights have been created and are displayed in Gould Hall. 42% of guest speakers were from underrepresented groups, up from 39% last year, exceeding the goal.

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 had been met. However, the division has implemented a growth plan that resulted some teaching assignment changes as we have added additional sections of classes and new faculty have been added. However, for most faculty, these changes are a reduction of course assignments by teaching two sections of a class. The changes were all made with input from the faculty involved and have allowed faculty to retain the course of their preference.

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). Reaccreditation is coming in 2025.

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 one of the newly hired faculty, Dr. Asare, will be offering a new class focused on tech usage in construction.

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 is in process and is being met. Upper level classes had 38-41 students, graduate assistants have been provided, and each faculty is uniquely engaged with the construction industry. This objective will not be met starting Fall of 2024 as we will begin admitting 60 students in 3000 level courses. However, all but 3 course sections will be limited to 30 so this objective is not compromised.

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 being met and is ongoing. The research methods course has been moved to Spring, but all graduate students are taking it and while a grad student projects and/or theses have not been submitted some have and have been published.

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. Dr. McCuen was part of a team that was awarded a significant grant through the SPTC (likely the largest award in CNS history). In addition to that award, approximately $55k was awarded in new grants (not including the SPTC grant) and expenditures of existing grants added another ~$50k.

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. Largely the result of Dr. McCuen serving on two national level boards.

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