Annual Performance Report
Undergraduate Programs

Department/Program: Construction/Construction Management

Date submitted: September 30, 2024

Person(s) submitting report: John Cabage and the CNST Department Faculty

This program:
___is taught entirely online
___utilizes distance education*
_x_does not have any online courses

*(Distance education is defined by the Higher Learning Commission here https://www.hlcommission.org/General/glossary.html).

STUDENT LEARNING (Questions 1 – 6)

1. Please copy and paste the table from your assessment plan here that provides student learning outcomes, measures, and targets. The program student learning outcomes should align with SIUE's Objectives for the Baccalaureate Degree.

SIUE's Objectives for the Baccalaureate Degree		Program Studies Learning Objective	Performance Indicator or Measure	When the Measure is Assessed?	Program Target
Analytic, Problem Solving, and Decision-Making Skills	Information Literacy	SLO #1 and 2	Individual Reports and Presentations	CNST 210, 301L, 361	90%
	Qualitative Literacy	SLO #4 and 16	Project Estimates and Exams	CNST 241, 261, 351, 361	90%
	Ability to Understand and Interpret Written and Oral Text	SLO #6, 10, 14	Project Report and Exams	CNST 411	80%
	Ability to Recognize, Develop, Evaluate, and Defend or Attack Hypotheses	SLO #1, 2, 6, 7	Project Reports and Presentations	CNST 111, 210, 301L, 351, 361, 411	90%
Oral and Written Communication Skills	Written Communications	SLO #1	Written Reports and Proposal	CNST 301L, 361	90%

	Oral Communications	SLO #2	Individual Project Presentation	CNST 210, 361	90%
Foundation in Liberal Arts and Sciences		SLO #1 and 2	Project Reports and Presentations	CNST 210, 301L, 361	90%
Value of Diversity		SLO #15	Exam and Senior Project	CNST 371, 452	80%
Scientific Literacy		SLO #16 and 17	Exams	CNST 241, 321, 332, and 351	80%
Ethics		SLO #6	Project Reports	CNST 351 and 411	90%
Preparation in an Academic Discipline		SLO #13	CNST 303 and 361	Assignments and Exams	80%

a. . Has the program changed its assessment plan and process?

□ *Yes*

□ *No*

If yes, provide a summary of the changes and attach the program's revised assessment plan.

Our accreditor, ACCE has reworked their student learning outcomes. During this academic year our program was evaluated by the accreditors and received a seven-year accreditation before the next evaluation. The faculty decided to adopt the new student learning outcomes as guided by the accreditors and these data reflect the change.

2. Please provide data from your assessment measures illustrating trends over the past 2 years. Include summarized data for all program assessments. *This section should show results of student learning for each assessment included in the table above (data should be added for each learning objective and indicators)*[1]. You may attach tables summarizing the data and provide a brief narrative describing the specific findings*.

The Student Learning Outcomes Table is in Appendix A and the Assessment and Analysis Table is included in Appendix B. These tables are taken directly from the program assessment plan.

Appendix C includes the table labeled SLO's, CLO Assessment Tools, Targets and Data. At the end of Spring 2023, all assessment tools indicate student attainment of the faculty expectations. The faculty has developed new assessment tools and processes based upon the curricular refresh that began last year and updated our assessment plan.

*If there are any student learning outcomes that suggest potential concerns, please list these in the Continuous Improvement Log (question 6) and describe how these will be monitored.

[1] Data should be aggregated. Do not include student identifiers.

3. Please complete the following table with overall results from the Senior Assignment:

Semester	Number of Students Completing the Senior Assignment	Number of students exceeding expectations	Number of students meeting expectations	Number of students NOT meeting expectations
Summer 2023	0	NA	NA	NA
Fall 2023	13	10	2	1
Spring 2024	12	9	3	0
Total for AY 23-24	25	19	5	1

4. Please complete the following table with Senior Assignment results related to the Objectives for the Baccalaureate degree. Please include data for all students completing the Senior Assignment in your program in AY 23-24 (e.g. Summer 2023– Spring 2024)

Objective	Number of students where this objective was measured*	Percentage of students exceeding expectations	Percentage of students meeting expectations	Percentage of students NOT meeting expectations
Analytic, Problem Solving, and Decision-Making Skills	24	27.2	58.3	12.5
Written Communication	24	45.8	45.8	8.4
Oral Communication	24	66.7	33.3	0
Foundation in Liberal Arts and Sciences	24	29.2	70.8	0
Value of Diversity	24	100	0	0
Scientific Literacy	24	25.0	70.8	4.2
Ethics	24	16.7	66.6	16.7
Preparation in an Academic Discipline	24	16.7	75.0	8.3

*Please, provide exact headcount.

5. After reviewing the assessment results the department has decided to: (check one)
   - □ **Stay the course and continue to monitor;** we're satisfied that the program is preparing students to meet the benchmarks/ outcomes/goals.
   - □ **Monitor the results and investigate causes;** we may need to make changes but need more information to make that decision. Lis below what you plan to investigate.
   - □ **Make changes.** List changes below.

Comments:

The faculty has noted that improvement needs to be made in scientific literacy even though the final exam numbers did not bear out what is being boserved in the individual classwork instruments. The faculty is looking at ways to improve this aspect of the curriculum.

Additionally, the continued increased growth of the program has enlarged our sections to the point that it is difficult to do hands-on laboratory work within the classrooms. An additional faculty line is required to

alleviate this issue so that we can have multiple sections of the same class particularly in the freshman, sophomore, and junior classes.

6. Please complete the **Continuous Improvement Log** regarding the program's continuous improvement activities. Write a brief summary of continuous improvement efforts undertaken by the program in last fiscal year.

Continuous Improvement Log

What have you identified in your assessment data or other information that you are looking into further?	What specific data or evidence was used to identify the problem?	What is the source of the evidence or data?	What action(s) have been taken or solutions identified to promote improvement?	When did the action(s) occur?	What are the results of the change(s) or improvement(s)? Provide evidence demonstrating the outcome. If there is not yet evidence to demonstrate change, what anticipated outcomes do you expect?
Items Identified Last Year					
Risk Management to be better emphasized in curriculum	Faculty Assessment Review	Employer survey and exam questions in CNST 452	CNST 485 was created and will be offered Spring 2025 and taught by an experienced teacher online at Carbondale.	Academic Year 2023 and 2024	**TBD**
Construction project controls needs emphasis. (SLO 13)	Faculty Assessment Review		CNST 361 = Labor, Resource Leveling and Bidding was created. To be implemented Spring 2025.	Academic Year 2023 and 2024	TBD
More emphasis on Project Delivery (SLO 10)	Faculty Assessment Review		The CNST Core Curriculum was revamped to include additional core coursework	Academic Year 2023 and 2024	TBD

			emphasizing these concepts. Full implementation began AY 2024/25.		
Structural Behavior needs more emphasis. (SLO 16)	Faculty Assessment Review		This has been discussed by faculty without landing on a good solution. This continues to be an issue and is one perenielly in Engineering Curriculums. Will further address this year.		Develop a solution this academic year.
Coop and work-study experiences to be formalized.	Faculty Assessment Review		Worked with the professional advisory board and developed a task force panel to address this issue.	Summer 2024	Task Force Formed to address issues.
Study Abroad reinistated.	Faculty Assessment Review			We attempted this as a collaboration with the School of Nursing. We did not get full support from our advisory board and political unrest caused our plans to be unachievable. We elected not to pusue this in the near future.	Tabled.
Emphasis on student competitions.	Faculty Assessment Review		Sent students to five different national competitions.	Last Academic Year	Heightened participation thus far in AY 2024/25.

Undergraduate research opportunities emphasized	Faculty Assessment Review		URCA Student awarded for Dr. Werner. Research Projects enfolded into capstone.	Last Academic Year	Heightened awareness of critical thinking capabilities.
Roll out plan for new surveying major program	Dean' s Requirement			Fall 2023	Nine students in major. Enrollment marketing program initiated.
Roll out plan for construction management refresh	Dean's Requirement			Fall 2024	Significant enrollment increases above the direct entry influence.
Development of a Construction Management Graduate Program	Industry Advisory Board Recommendation		Faculty developed plan. To be institited collaboratively with Carbondale. Proposal to be submitted this academic year.	Last and this academic year.	In progress.
Development of a Surveying Minor	Request from Civil Engineering and Illinois Professional Land Surveyor's Association		Paperwork for approval at the School of Engineering Curriculum Committee.	Fall 2024	Estimated 30 students in Civil Engineering and Land Surveying Specialization will switch to the minor.
Items Identified This Year by Faculty					
Understanding of Quality Control needs enhancing (SLO 12)	Faculty Assessment Review				
Understand basic principles of structural behavior. (SLO 16)	Faculty Assessment Review				

Evaluate curriculum refresh work for effectiveness					

ONLINE ASSESSMENT – (Question 7) Complete this section if you have at least one online course in your program; if you only have traditional or hybrid courses, please move to Enrollment and Completion

7. Complete the table below for **all online courses** in your program offered during this academic year. If there is no similar traditional course to the online course, include 'NA' in the appropriate cells. **If there are substantial differences between online and traditional courses, please include comments and/or plans for resolution.**

Course number	**Are the course objectives the same as the traditional format course? (Y, N, NA)**	**Of the students that enrolled, what percent completed the online course with a C or better?**	**Of the students that enrolled in the same course but in traditional format, what percent of students completed the traditional course with a C or better?**	**How do you ensure that this course is coherent, cohesive, and comparable in academic rigor to the traditional format course?**	**Were there any difficulties experienced in offering this course online?**
NA	NA	NA	NA	NA	NA

7a. Where applicable, what strategies did you use to improve courses offered in online formats?

ENROLLMENT AND COMPLETION – (Questions 8 – 11)

8. If applicable, please describe the Department's contributions to:
   - General Education
   - Other Programs (Honors, CODES, FST, etc)
   - Other

The department contributes to other programs by allowing various instructors to teach courses within Civil, Mechanical, and Industrial Engineering. Our curriculum has interwoven the SIUE objective for analytics, communication, liberal arts, diversity, and ethics. Our coursework has an appropriate amount

of rigor based upon the results of our employer's survey, but with technology and industrial emphasis shifts, the faculty has responded by creating the curriculum refresh which is in the approval process. This should enhance learning as it relates to the scholar-learner model.

Our program partners with the School of Business by folding into the curriculum a business minor. We have rolled out the Land Surveying and Geomatics Major which combines surveying classes within the department and classes within geography to create a new degree for professional land surveyors and geospatial partners. We are partnering with Carbondale as we develop post-graduation certificates and a Masters program.

In addition, we collaborate with liberal studies and the sustainable community's collaborative so that the students apply their learning towards improving equity in our Metro East community.

9. Please complete the enrollment table and describe how the program is addressing enrollment trends. The response should outline any curricular decisions or external factors that have led to changes in enrollment. If the change in enrollment potentially affects student learning, please describe the issues at stake. Use this link to find degrees granted and enrollment data: http://www.siue.edu/inrs/factbook/annex.shtml

		FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY24
# degrees granted		20	21	25	27	26	23	25
# of students enrolled (Fall)	In CNST Major	58	58	59	48	50	55	59
	Pre ENGR CNST	44	48	48	43	30	34	63
	Total CNST Major Students	**102**	**106**	**107**	**91**	**80**	**89**	**122**
	In SURV & GEO Major						1	6
	In Pre ENGR S&G						3	3
	Total SURV & GEO Students						**4**	**9**
	Total Departmental Enrollment	**102**	**106**	**107**	**91**	**80**	**93**	**131**
	Other ENGR taking classes				19	24	10	22
	CAS/Other taking Dept. Classes				22	28	39	21
	Total Taught In Program				**132**	**132**	**142**	**174**
Optimal enrollment				130	130	120	120	120

10. Discuss program retention rates. Please pay particular attention to specific successes and areas of concerns and any potential barriers to completion that might need to be addressed. Use the following link to get your program data: https://www.siue.edu/inrs/factbook/Program_rates.shtml

Students are continuously monitored by the Chair and department faculty. Students with identified problems within the class are first contacted by the faculty and if this does not work, then by the Chair and they are reported to counselors through Starfish.

11. Please, include a discussion of any high impact practices with a specific lens on serving under-represented minority students.

The department is steeped in Collaborative assignments, participates in Undergraduate Research, and is adept in generating community impact projects that stimulate diversity and global learning. In addition, students can impact community through service to the community, internships, and capstones that are actual community impact projects. In all these forms a learning community with common intellectual experiences that is mentored by faculty and industry professionals. Our introductory students participate with faculty and guest alumni in class and at networking events regularly. Of the ten High Impact Practices, the department fully engages the students in nine of them.

EXPERIENTIAL EDUCATION – (Question 12)

12. Experiential learning entails learning by doing, reflecting upon the learning, and feedback. Please complete the following table with information about any of the listed activities where students participate in experiences that allow for structured practice with real world problems or scenarios, they reflect on their practice, and they receive feedback. Please include activities only once in the table if they meet multiple categories. For example, if a practicum includes simulation, include the activity only under practicum or simulation, but not both. Please, report this data based on FY 24.

Activity	**List the course or courses where this activity occurred if applicable - does not have to be part of a course* and the term**	**Brief description of the activity**	**Number of students that participated**	**Number of hours spent on the activity per student.**	**Note if this is required or elective in the program (R or E)**

Case Studies	CNST 451L Fall 2023	Estimating the cost of an airport building addition	23	20	R
	CNST 451 Spring 2024	Full construction cost estimate for a residential duplex house	23	15	R
		Full construction cost estimate for a High School Classroom Building Addition	23	30	R
	CNST 495 Spring 2024	Weekly case studies of LEED sustainable or green buildings	18	20	R
Client-based projects	CNST 452, Fall/Spring AY 2024	Proposals for the development of a Construction Management Center.	12	40	R

		Economic Development work for the Quinn Chapel Church historic building.	13	40	R
Clinical experiences	None				
Competition/Exhibition	Surveying Club, Spring 2024	NSPS National Competition	6	40	E
	ACI Club, Fall 2023	ACI International Convention Competition, San Francisco	4	30	E
	ACI Club, Spring 2024	ACI International Convention Competition, New Orleans	4	30	E
	Constructors Club, Fall 2023	ASC Region 3 Commercial Construction Cmpetition	4	40	E
Co-ops	None				
Fellowships	None				
Field Trips	CNST 120, Spring 2024	Field Trip to RG Ross Construction Site	24	3	R
	CNST 120, Spring 2024	Field Trip to Life Sciences Building under Construction.	24	3	R

Field Work	CNST 485/495 - Drone Class,, Fall 2023	Field drone flight	19	6	R
	CNST 452, Fall 2023	Brooklyn, IL Jobsite work	13	30	R
Internships for Credit	CNST/SURV 470, All Semesters	Internship	32	300	R
Laboratory Work	CNST 210, Fall 2023	ASTM Testing Labs	22	4	R
	CNST 111/211, Spring 2024	ASTM Testing Labs	53	4	R
	CNST 301, Fall 2024	ASTM testing labs to dertermine unit weight, specific gravity, gradation, atterberg limits, permeability, and compaction properties of a soil sample. 5 activitites total.	11	20	R

	CNST 153/353, Fall and Spring	Computer Labs in AutoCAD, Excel, Bluebeam, Procore	83	40	R
	CNST 485/495, Fall 2023	Computer Labs for Photogrammetry, Point clouds, and mapping	19	40	E
	CNST 451L, Fall 2023	Estimation Labs geared towards solving estimating problems and learning software tools	23	27	R
Learning Communities	CNST 452, Fall/Spring AY 2024	Proposal for the Construction Center.	12	40	R
		Work with Brooklyn, IL, Quinn Chapel Church.	13	40	R
Performances	None				
Practicums	None				
Service Learning/Community Service	CNST 452, Fall 2023	Work on Quinn Chapel Church, Brooklyn, Illinois	13	40	R

Simulations	CNST 332, Fall 2023	Ran computer-based simulation of the full HVAC heating and cooling load for the purpose of sizing an HVAC system for a modest commercial building	28	20	R
	CNST 303/403, Fall 2023	Develop scheduling simulations to monitor project progress	25	25	R
	CNST 271/432, Fall 2023	Work on a student dorm BIM building model by running clash detection and estimations.	13	40	R
Student Teaching	None				
Study Abroad	None				
Supervised Training	None				
Undergraduate Research	None				
Volunteer Experiences	CNST 452, Fall 2023	Work on Quinn Chapel Church	13	30	R

Writing Intensive Courses	CNST 452, Fall and Spring, AY 2024	Students were required to submit a 10-page response to a Request for Qualifications, and a 20-page response to a Request for Proposal for a design-build project solicitation	25	40	R

**This may include department/school/student organization activities as well.*

Appendix A

Learning Outcomes
Students Will:
1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Create a construction safety plan.
4. Create construction project cost estimates.
5. Create construction project schedules.
6. Analyze professional decisions based upon ethical principles.
7. Analyze methods, materials, and equipment used for construction projects.
8. Apply electronic-based technology to manage the construction process.
9. Apply basic surveying techniques for construction layout and control.
10. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
11. Understand construction accounting and cost control.
12. Understand construction quality assurance and control.
13. Understand construction project control processes.
14. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
15. Understand the principle of sustainable construction.
16. Understand the basic principles of structural behavior.
17. Understand the basic principles of mechanical, electrical and piping systems.

Appendix B – Assessment and Analysis Table

Master Assessment Record - Academic Year 2023/24

SLO Number	ACCE Learning Outcome	Course/SLO Assessment Tool		Assessment Type	Threshold[1]	Requirement[2]	Average Student Score	Range of Student Scores	%Students meeting the Requirement Score	Was the Threshold met? (Y/N)
		Course	Assesssment Tool							
1	Create written communications appropriate to the construction discipline.	CNST 301L	Written Lab Report	Direct	80	70	75.1	73 to 94	100	yes
		CNST 361	Bid Proposal to Awarding Stakeholder	Direct	90	70				
2	Create oral presentations appropriate to the construction discipline.	CNST 210	Individual Project Presentation	Direct	80	70				
		CNST 361	Individual Project Presentation	Direct	90	70				
3	Create a construction project safety plan.	CNST 321	Create a Safety Plan for Energized Systems	Direct	80	70				
		CNST 470	Create a Safety Plan	Direct	90	70				
4	Create construction project cost estimates.	CNST 261	Project Estimate	Direct	80	70	89	55 to 93	95.65	yes
		CNST 361	Project Estimate	Direct	90	70				
5	Create construction project schedules.	CNST 271	BIM Project using NAVISworks	Direct	80	70	92.42	0 to 100	93.55	yes
		CNST 303	Project Report	Direct	90	70	87.04	75 to 97	100	yes
6	Analyze professional decisions based on ethical principles.	CNST 351	Project Report	Direct	80	70	78.1	71 - 100	80	yes
		CNST 411	Project Report	Indirect	90	70	76.08	53 - 93	87.5	yes
7	Analyze methods, materials, and equipment used to construct projects.	CNST 111	Written Assignment	Direct	70	70				
		CNST 303	Project Report	Direct	80	70	87.04	75 to 97	100	yes
8	Apply electronic-based technology to manage the construction process.	CNST 153	Individual Assignment/Projects	Direct	80	70	76.6 if consider the 6 students; or 82.8 w/o the 6 students	0 to 100; or 50 to 100	79% if consider 6 students; or 85% w/o 6 students	yes
		CNST 271	Individual Assignment	Direct	90	70	98.29	36-100	71%	no
9	Apply basic surveying techniques for construction layout and control.	SURV 264	Exam2,Survey Computations and Layout	Direct	80	70	86	60 to 100	95%	yes
		CNST 452	Senior Exit Exam	Indirect	80	60	68.3	20 to 100	83%	yes
10	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design	CNST 303	Exam Questions	Direct	80	70	83.68	65 to 99	84.6	yes
		CNST 411	Exam Questions	Direct	80	70	93.3	40 - 100	95.8	yes
11	Understand construction accounting and cost control.	CNST 361	Exam Questions	Direct	80	70				
		CNST 452	Senior Exit Exam	Indirect	80	60	68.3	20 to 100	83.3	yes
12	Understand construction quality assurance and control.	CNST 210	Exam Questions	Direct	80	70	76.1	40 - 99	50%	no
		CNST 301	Exam Questions	Direct	80	70	63.3	22 to 93	40%	no
13	Understand construction project control processes.	CNST 303	Individual Assignment	Direct	80	70	75.44	20 to 100	80	yes
		CNST 361	Exam Questions	Direct	80	70				
14	Understand the legal implications of contract, common, and regulatory law to	CNST 411	Exam Questions	Direct	80	70	84.7	62 - 99	67	almost
		CNST 452	Senior Exit Exam	Indirect	80	66.7	83.8	50 to 100	91.7	
15	Understand the basic principles of sustainable construction.	CNST 371	Exam Questions	Direct	80	70	86.1	67.6% to 96%	44% (17 of 1	yes
		CNST 452	Senior Exit Exam	Indirect	80	60	71.7	15 to 100	83.3	yes
16	Understand the basic principles of structural behavior.	CNST 241	Exam Questions	Direct	80	70	58.97	9 to 99	43%	no
		CNST 351	Exam Questions	Direct	80	70	73.5	47 - 90	67	no
17	Understand the basic principles of HVAC, electrical and plumbing systems.	CNST 321	Exam Questions	Direct	80	70	81.95%	62% to 95.2%	95.45% (21 of 22)	yes
		CNST 332	Exam Questions	Direct	80	70	83.90%	4.6% to 99.2%	89.29% (25 of 28)	yes

[1]The Threshold is the goal for the percentage of students attaining the requirement grade percentage

[2]The requirement is the scoring percentage of the assignment required by the department for a satisfactory score for the assignment.

CNST 361 will be offered in the Spring of 2025

Appendix C – CLO Assessment Tools, Targets, and Data

#	ACCE Student Learning Outcomes	Course CLO			Data (Percentage Exceeding Requirements)									
		Course	CLO Assessment Tool	Threshold (%)	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2024/Spring 2024	Comments
1	Create written communications appropriate to the construction discipline.	CNST 211	Project Report	80	100	---	79	---	100	---	80	81		
		CNST 351	Project Report	80	100	---	100	---	61	---	100	---		
		CNST 452	Senior Project Report	90	100	100	73	100	100	100	100	100		
		CNST 301L	Written Lab Report	80									100	
		CNST 361	Bid Proposal	90									**	** - CNST 361 to be initially offered Spring of 2025.
2	Create Oral Presentations appropriate to the construction discipline.	CNST 210	Project Report	80	100	---	91	---	---	88	100	100	#	
		CNST 351	Project Report	80	100	---	91	---	96	---	100	---		# - Class becoming too large for individual presentations. Spring offering.
		CNST 452	Senior Project Report	95	100	100	100	100	100	100	100	100		
		CNST 361	Project Presentations	90									**	** - CNST 361 to be initially offered Spring of 2025.
3	Create a construction project safety plan.	CNST 452	Senior Project Report	95	100	100	100	100	64	---	100	100	100	
		CNST 321	Safety Plan Report	80									***	*** - To be Instituted Spring 2025
		CNST 470	Safety Plan Report	90									#	# - To be instituted Summer 2025
4	Create a construction project cost estimate	CNST 451	Class Project	85	83	100	75	100	77	100	100	100		
		CNST 261	Project Estimate	80									##	## - CNST 261 - to be offered Spring 2025
		CNST 361	Project Estimate	90									**	** - CNST 361 to be offered initially Spring of 2025.
5	Create construction project schedules.	CNST 271	BIM Project using Navisworks	80									93.6	CNST 271 was formerly CNST 443
		CNST 303	Project Report	90	100	60	72	100	80	---	100	100	100	CNST 303 was formerly CNST 403
6	Analyze professional decisions based upon ethical principles.	CNST 351	Project Report	70	100	---	91	---	61	---	100	---	80	
		CNST 452	Assignment	85	100	80	100	100	71.4	75	92.3	100		
		CNST 411	Project Report	90									87.5	
7	Analyze methods, materials, and equipment used to construct projects.	CNST 111	Exam Questions	80	---	62	86	---	93.3	---	90	93.8	No Data	
		CNST 351	Exam Questions	70	100	---	97	---	54	---	96	---		
		CNST 303	Prioject Report	70	---	88	---	81	---	70	---	72	100	
8	Apply electronic -based technology to manage the	CNST 153	Individual Assignment	80	---	75	---	85	---	87.5	60	70.6	95	
		CNST 271	Individual Assignment	80	---	75	---	85	---	87.5	60	70.6	83	
9	Apply basic surveying techniques for construction layout and	SURV 264	Exam Questions	80	100	100	93	---	88	84	90	90	95	
		CNST 452	Senior Exit Exam	80	100	100	93	---	88	84	90	90	83	
10	Understand different methods of project delivery and roles and	CNST 303	Exam Questions	80									84.6	
		CNST 452	Senior Exit Exam	80	100	100	100	100	75	61	84.6	100	95.8	
11	Understand construction accounting and cost control.	CNST 452	Assignment	80	100	100	80	81.8	14	14	46	90		
		CNST 361	Exam Questions	80									**	** - CNST 361 to be initially offered Spring of 2025.
		CNST 452	Senior Exit Exam	60									83.3	
12	Understand construction quality assurance and control.	CNST 210	Exam Questions	80	---	78	---	100	---	100	100	70	50	
		CNST 301	Exam Questions	70	---	88	---	81	---	80	---	82	40	
13	Understand construction project control processes.	CNST 303	Individual Assignment	70	63	100	89	---	91	---	100	---	80	
		CNST 361	Exam Questions	70									**	** - CNST 361 to be initially offered Spring of 2025.
14	Understand legal implications of contract, common, and	CNST 411	Exam Questions	70	---	---	---	---	---	*	---	95	67	
		CNST 452	Exam Questions	66.7	---	---	---	---	---	*	---	95	91.7	
15	Understand the basic principles of sustainable construction	CNST 210	Exam Questions	70	---	100	---	85	---	71	100	100		
		CNST 371	Exam Questions	70									94.4	
		CNST 452	Senior Exit Exam	60									83.3	
16	Understand the basic principles of structural behavior.	CNST 241	Exam Questions	70	30	50	47	62	66.7	46	50	50	43	
		CNST 351	Exam Questions	70	100	---	97	---	58	---	96	---	67	
17	Understand the basic principles of mechanical, electrical, and piping systems.	CNST 321	Exam Questions	80	---	73	---	---	---	87.5	---	96	95.5	
		CNST 332	Exam Questions	80	---	---	---	---	100	---	100	---	89.3	