

**Construction Project Management Assessment Implementation Plan
Updated September 21, 2021**

Mission Statement:

The mission of Dunwoody College of Technology's Construction Management programs are to accomplish the following:

- Develop leaders in the field of construction with technical competence and an awareness of emerging issues that impact the design and construction industry.
- Engage students through industry partnerships, service learning, and hands on real-world projects.
- Provide instruction by practicing professionals and experienced educators to establish a strong connection between curriculum and industry application.

Degree Program Objectives:

Strategic Goal Area: Raise the Profile

- Maintain graduate employment placement rate of at least 90% within the field of construction within six months of graduation.

Strategic Goal Area: Grow the College

- Increase diversity and inclusion to 20% women, 20% BIPOC, and 20% veteran by 2025.
- Increase program size to 100 students by 2025.

Strategic Goal Area: Develop the Dunwoody Student

- Broaden curriculum to 25% residential focus by 2022
- Increase Program Advisory Committee influence by integrating active student participation through the addition of 2 student representatives by 2022.

Assessment Tools:

Assessment Tool 1: Program Objectives

Program Objective	Frequency Assessed:	Source of data	Results	Action taken
Maintain graduate employment placement rate of at least 90% within the field of construction within six months of graduation.	Every semester	Graduate survey	Graduation rate of employment is 100%	Highlight graduation rate in marketing and in orientation
Increase diversity and inclusion to: 20% women 20% BIPOC / underrepresented community and 20% veteran by 2025.	Every semester	Enrollment reports after day 8	2021 Fall data: Certificate: 4 female; 4 BIPOC; 1 veteran AAS: 12 female; 20 BIPOC; 15 veteran BS: 2 female; 11 BIPOC; 12 veteran	Work with marketing to develop collateral specifically focused on target communities.
Increase program size to 100 students by 2025.	Annually	Enrollment reports after Day 8 attendance	2021 Fall data: Certificate: 9 students AAS: 80 students BS: 28 students	Revise new goals for 2025
Broaden curriculum to 25% residential focus by 2022	Annually	Curriculum review with faculty, Director and Dean and PAC	Two classes include residential curriculum: CMGT2150 and CSBT1002.	Content review for curriculum to take place in Spring 2022.
Increase Program Advisory Committee influence by integrating active student participation through the addition of 2 student representatives by 2022.	Annually	PAC roster	2021 Fall data: No students actively serving on PAC	Invite four students in their first year to join PAC for winter 2021 PAC meeting.

Assessment Tool 2: Student Learning Outcomes

Benchmark: 70% of students achieve 75% or more on each Student Learning Outcome (SLO).

SLO #	Course & assignment assessed	Frequency Assessed:	Next assessment scheduled	Assessment Method (direct/indirect)	Results	Action taken	Implementation / Follow up Date	Notes
1a. Create written communications appropriate to the construction discipline.	CMGT1111: Assignment 7.1 CMGT2230: RFI #7 and 8	Fall 2020 Spring 2021	Fall 2021 Spring 2022	Direct	Average score for the assignment was 96%. Average score was 88%	Revise rubric to assess finer gradations of written communication. Separate rubric for oral and written communication Determine engagement for students not completing assignment Revise to be individual assignment	Discovered that this assignment did not truly exemplify written communications. Assignment was done as a group project and will be revised for Spring 2022 as individual assignment	Scores for students who did not complete the assignment were removed from calculation. Updated this SLO for assessment in CMGT2230 in Spring 2021
	CSBT1000	Fall 2020	Fall 2023	Direct	Average score for the assignment was 76.47%	Modify syllabus to require completion of all summative assignments. Determine engagement for students not completing assignment.		Calculation for the average score included students not submitting the assignment.
1b. Create oral presentations appropriate to the construction discipline.	CMGT1111: Assignment 7.1	Fall 2020	Fall 2023	Direct	Average score for the assignment was 98%	Revise rubric to assess finer gradations of performance. Determine engagement for students not completing assignment		Scores for students who did not complete the assignment were removed from calculation.
	CMGT2230: Assignment PRES 01	Spring 2020	Spring 2023	Direct	Average score for the assignment was 88%	Modify assignment to separate individual oral presentations from team presentation. Base assessment clearly on individual performance.		Individual assessment was revised for Spring 2021 class.
2. Create construction project cost estimates.	CMGT1211: Assignment A.W4	Fall 2020	Fall 2023	Direct	Average score for the assignment was 74.6%	Provide and present an example of estimating concrete that can be presented online or face to face.		Re-assess SLO after Spring 2021
	CMGT2150: Assignment P.W4	Fall 2020	Fall 2023	Direct	Average score for the assignment was 80%, but only 60% of students earned this average	Add an additional unit on estimating protocol and provide an example of a final estimate that meets the scope of the assignment specifications.		Revisit this course after Fall 2021.

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SLO #	Course & assignment assessed	Frequency Assessed:	Next assessment scheduled	Assessment Method (direct/indirect)	Results	Action taken	Implementation / Follow up Date	Notes
3. Create construction project schedules.	CMGT2150: Assignment P.W5	Fall 2020	Fall 2023	Direct	47.4% of students scored more than 75% on the assignment.	Demonstrate Microsoft Project and provide an example of final schedule to meet the scope of the assignment requirements		
	CMGT1231: Week 14&15 A Worksheet	Fall 2020	Fall 2023	Direct	88% of students achieved 85% or higher on the assignment.	Add in multiple projects with varying schedules and simulate a CM bullpen environment to assess critical thinking.		
4. Apply electronic based technology to manage the construction process.	CMGT2230: Test 02B Question 1	Spring 2020	Spring 2023	Direct	90% of students had an average score of 90%	Create an RFI assignment that requires using an electronic tool like BlueBeam Explore using our ProCore account to have the students earn certificates that demonstrate an understanding of ProCore		
	CSBT1002: Final Project	Fall 2020	Fall 2023	Direct	77% had an average score of 80% or higher	No revisions proposed		
5. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT1313: Quiz question	Spring 2021	Spring 2024	Direct	14 of out 15 students got the question correct	No revisions proposed, but continue monitoring student performance on the question		
	CSBT2110: Test question #21 CMGT2221: Mediation assignment	Spring 2020	Spring 2023	Direct	All students in the course got the question correct	Utilize the entire test for assessment, not just the question	Revised this SLO to be assessed in CMGT2221 – used data from Spring 2020	Feedback from visiting team indicated we should revise this to cover more than just one question.
6. Understand construction accounting and cost control.	CMGT1211: Final estimating project	Fall 2020	Spring 2023 Spring 2022	Direct	100% of students earned 75% or higher on the test	Revisit this course after fall 2021 Incorporate an assignment that utilizes monthly pay applications	Revised this SLO with CMGT2230 Pay Application assignment	Revised 2021 Academic Plan to include a business accounting course as preparation for this SLO in CMGT courses
	CMGT2230: Test 10C Project Control – Essay question 1	Spring 2020	Spring 2023	Direct	79% of students earned an average of 84%	No action for the assessment tool	Building a cost loaded schedule and analyzing cash flow could be introduced and assessed	Review with IAB/PAC in spring 2022
7. Apply basic surveying techniques for construction layout and control.	SCVL1111: Closing the Horizon	Fall 2019	Fall 2022	Direct	93% of students recorded a score of 75% or more	Revise rubric to better align with industry practices		
	SCVL1111: Survey Techniques	Fall 2019	Spring 2022	Direct	67% of students scored 75% or higher	More instruction and formative assessment on field procedures using total station equipment		

SLO #	Course & assignment assessed	Frequency Assessed:	Next assessment scheduled	Assessment Method (direct/indirect)	Results	Action taken	Implementation / Follow up Date	Notes
8. Analyze ethical decisions based on legal principles	CMGT2150: Final project proposal	Fall 2020	Fall 2021	Direct	94% of students scored more than or equal to 75%	Incorporate more specific formative activity related to ethics in residential construction and	Revised assignment to be given to students in week 12 in Fall 2021	Initial feedback from ACCE visiting team suggested revising this assignment. It has been revised for Fall 2021 and will be assessed this term.
	CMGT2230: Test12C Ethics Essay Question 1	Spring 2020	Spring 2023	Direct	82% of students earned an average score of 87%	No action for this assessment tool	Further develop this SLO through small group discussion and oral presentation	
9. Analyze construction documents for planning and management of construction processes.	CMGT1131: Assignment A.W6 Specifications	Fall 2020	Fall 2023	Direct	100% of students earned an average score of 90.8%	No action for this assessment tool		
	CMGT2230: Test 03B Essay question 1	Spring 2020	Spring 2023 CHANGED to Spring 2022	Direct	97% of students met the goal; however, it was determined that this is not a valid assessment of the SLO	This test question assesses as student's familiarity with terms and concepts related to risk, but does not analyze the documents themselves.	Create an assignment that requires a student to directly analyze construction documents	
10. Analyze methods, materials and equipment used to construct projects.	CMGT1221: Assignment question	Spring 2020	Spring 2023	Direct	71% of students answered this question correctly	No immediate action taken	Continue monitoring this question type to gauge effectiveness	
	CMGT1131: Assignment B.W6 Masonry Brick	Fall 2020	Fall 2023	Direct	73% of students earned an average score of 79.9%	No immediate action taken		
11. Create a construction safety plan.	CMGT2131: Assignment 2 - Falls	Spring 2021	Spring 2024	Direct	5 out of 6 students earned higher than 70% on this assignment.	Assignment needs revisions to better clarify expectations and final product	Revise assignment with new title, clarifications on addressing hazards and place later in the semester.	
	CMGT2230: Test 06B Safety - Essay	Spring 2020	Spring 2023	Direct	91% of students earned an average of 97% on this question	This needs to be moved to CMGT2131 or CMGT2132	Revise safety course to incorporate creation of a safety plan	Need to confirm there are two options to assess safety plans in CMGT2131/2132
12. Understand the basic principles of structural behavior.	CMGT2203: Assignment 02	Fall 2020	Fall 2023	Direct	11 out of 12 students earned an average score of 83.8%	Revising to consider a different assignment		
	SCVL2111:	Spring 2020	Spring 2023	Direct	83% of students got the question correct	Include an open ended question instead of multiple choice		
13. Understand the basic principles of mechanical, electrical, and piping systems.	CMGT1131: midterm exam questions 10,16,18,22,33,38	Fall 2020	Fall 2023	Direct	57% of students scored below 75%	Give students more time to complete the exam and reassess	Internet speeds effect student downloads which impacts a student's ability to complete this	
	CMGT2211: Final test	Spring 2020	Spring 2023	Direct	7 out of 8 students earned an average of 88% on the final	No action needed	No follow up needed	

Assessment Tool 3: Industry Feedback

Goal: review 3 courses with PAC annually; 3 for AAS and 3 for +2

Course name	Planned assessment date	Feedback from PAC	Action taken
CMGT1131: Plans & Measurements	Fall 2021	Overall feedback from the PAC was not to change the structure of the class to be a print reading class and a basic take off. Need to make sure that we are including how a building goes together – better cross curriculum with Drafting.	Implement more software in the class while still utilizing paper methods for hand takeoffs Revise curriculum to incorporate more of the process of how buildings go together
CMGT2203: Construction Management Statics and Structures	Fall 2021	Incorporate specifications in some way – add in discussions about ASTM and ACI Reinforce the importance of this topic in construction management Clarify what ACCE is looking for around load tracing; is it more about load transfers within the building?	Spring 2022: moved this class to second semester Consider how to build on basic materials testing in SCVL2111 Add in load transfers assignment Collaborate with Engineering for shared tutoring
CMGT2221: Construction Administration	Fall 2021	This class currently runs as asynchronous. Why are there so many reflection papers in the class? Enforce procurement and preconstruction – need to clarify the language around the term submittal Look at following the linear timeline of construction Need more around: supply chain, project closeout Work with technology more in this class. Use a real world project where students can talk to the PM and Owner.	Revise assignments to reduce reflection papers Work with industry to simulate a real world project Look at where some of this topic can be covered in other courses to emphasize its importance Consider making this course synchronous

Future course assessment with PAC/IAB planned:

Course name	Notes
Planned assessment cycle – Spring 2022	
CMGT4130: Green Construction	
CMGT4120: Field Engineering	
CMGT4220: Utility & Construction Design	
CSBT1000: AEC Seminar	
Fall 2022	
CMGT2131/2132 Construction Safety	
CSBT1000: AEC Seminar	
CMGT1111: Construction Industry	
Spring 2023	
CMGT3111: Construction Law	Spring 2023
CMGT3130: Quality Assurance & Risk Management	Spring 2023
CMGT4501: Capstone	Spring 2023