

CM Assessment Report

EVALUATION METHODOLOGY

Program Outcomes/Objectives

These outcomes describe the career and professional accomplishments that we expect our graduates to achieve early in their careers. The survey was conducted in May 2017 and Sept – Dec 2022 as shown below tables. The survey was not conducted during the COVID-19. A copy of the 2022 survey format and results can be found in Appendix 1 – Section 9.5 Plan Implementation.

Program Outcome (n=13) May 2017	Percent Achievement
1. To develop and maintain a sustained program of continuing education and life-long learning.	87.7%
2. To practice effective written and oral communication and successfully participate within an interdisciplinary team environment.	87.7%
3. To demonstrate an ability to apply problem solving skills and integrate technical knowledge.	93.3%
4. To be engaged construction professional who comprehends the ethical, social, environmental, and economic impacts of construction decisions and solutions.	87.7%
5. To be engaged citizens who seek service and leadership roles in professional societies and organizations, as well as the community.	63.1%

Program Outcome (n=22) Sept - Dec. 2022	Percent Achievement
1. Considering your participation in continuing education (for example, seminars, product presentations, lunch-and-learns, toolbox talks, etc.) since you've graduated, how would you evaluate your continuing education and life-long learning?	77.1%
2. How well do you practice effective written and oral communication skills?	83.8%
3. How well do you participate within an interdisciplinary team environment?	91.4%
4. How well do you demonstrate an ability to apply problem solving skills and integrate technical knowledge?	87.6%
5. How well have you become an engaged construction professional who comprehends the ethical, social, environmental, and economic impacts of construction decisions and solutions?	90.5%
6. How well have you become an engaged citizen who seeks service and leadership roles in professional societies and organizations, as well as the community?	78.1%

From 2017 survey, the target goal for the Program Outcomes was that alumni would average 80% (a "Good" rating) on each of the five Program Outcomes (Objectives). All were achieved except for number five (5). Based on the written comments from the respondents, most felt that it was too early in their careers to serving in leadership roles, specifically in professional societies and organizations, which is to be expected.

The 2022 Alumni Survey (Program Outcomes) was sent recent graduates. Using Qualtrics, the survey included demographic data (name, title, company, years of experience, etc.). In addition, additional questions were added about the CMGT program and curriculum.

In 2022 survey, the target goal for the Program Outcomes was that alumni exceeded average 80% (a "Good" rating) on each of the five Program Outcomes (Objectives). All were achieved except for number one (1) and six (6) slightly below 80%. Based on the written comments from the respondents, most felt that it was too early to receive employer-sponsored continuing education opportunity, and leadership roles in their careers, specifically in professional societies and organizations, which is to be expected.

Program (Student) Learning Outcomes

The percentages for the Direct Measures were calculated by the course instructor(s) responsible for the given Student Learning Outcome. The complete versions of the Student Learning Outcome Reports are found in Section 9.4 Achievement of SLOs.

The Indirect Measure was compiled from the ACCE Student Learning Outcome Survey (Graduating Senior Exit Survey). Copies of the submitted surveys will be available to the visiting team during the site visit. The following table presents indirect measure results from Fall 2022 graduate exit survey. Previous exit interview surveys are available upon request. Direct % is the average value if multiple direct measures were used for SLO direct measure assessment over multiple terms.

ACCE Student Learning Outcomes	Direct %	Indirect % (F 2022)
1. Create written communications appropriate to the construction discipline.	91%	94%
2. Create oral presentations appropriate to the construction discipline.	86.9%	93%
3. Create a construction project safety plan.	95%	92%
4. Create construction project cost estimates.	77.5%	94%
5. Create construction project schedules.	81.7%	85%
6. Analyze professional decisions based on ethical principles.	81.4%	92%
7. Analyze construction documents for planning and management of construction processes.	79.5%	93%
8. Analyze methods, materials, and equipment used to construct projects.	80.9%	92%
9. Apply construction management skills as a member of a multi-disciplinary team.	92.4%	95%
10. Apply electronic-based technology to manage the construction process.	68.6%	89%
11. Apply basic surveying techniques for construction layout and control.	85.3%	85%
12. Understand different methods of project delivery and the roles and responsibilities of constituencies involved in the design and construction process.	83.5%	94%
13. Understand construction risk management.	82.8%	91%
14. Understand construction accounting and cost control.	76.8%	87%
15. Understand construction quality assurance and control.	96.1%	92%
16. Understand construction project control processes.	78.8%	94%
17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	69.6%	90%
18. Understand the basic principles of sustainable construction.	47%	92%
19. Understand the basic principles of structural behavior.	79.4%	94%
20. Understand the basic principles of mechanical, electrical and piping systems.	81.3%	93%

For this accreditation, the performance criteria for both the Direct and Indirect Measures for each of the 1-20 Student Learning Outcomes was a minimum of 75%.

The evaluations for each SLO (Student Learning Outcome) are presented below and include course improvements and corrective actions.

1. Create Written Communications Appropriate to the Construction Discipline.

CMGT 39000: Construction Experience III (Career Center)

The Direct Measure for SLO 1 was the Work Report compiled from two semesters, as indicated below.

Term	N	Criteria	Average Percent	Target Percent
Fall 2020	5	Work Report	89% (177.4/200)	75%
Summer 2022	25	Work Report	93% (46.54/50)	75%

It was decided that the overall average of the total grades should be at least 75%. The Indirect Measure (90.4 %) and the Direct Measure (91%) indicate that the target value was met.

Proposed Actions for Course Improvement:

The following improvement action items can be implemented for the course:

- Educating internship students industry adopted software programs to manage field documents prior to the internship course
- Updating and archiving a weekly internship report in Canvas
- Conducting in-person employer interview
- Revising a report template to standardize the final work report
- Creating an open discussion board to share internship experience

2. Create Oral Presentations Appropriate to the Construction Discipline.

CMGT 44000: Project Management Capstone (Marvin Johnson)

The Direct Measure for SLO 2 was assessed using the Oral Presentation Rubric (80 pts.). The average grade and percent are presented below.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	21	Lab	96.64	75%
		Assignments	80.91	75%
		Final Exam (Part I - Written and Part II - Practicum)	78.96	75%
Fall 2022	13	Lab	93.21	75%
		Assignments	82.32	75%
		Final Exam (Part I – Written and Part II – Practicum)	80.57	75%

After the initial ACCE accreditation for the CM program, it was decided that an overall average of the total grades should be at least 75%.

For the Fall 2021 semester, the Indirect Measure was 88% and the Direct Measure was 85.6%. Assuming an equal weight for indirect and direct measures the composite grade was 86.8 % indicating that the target value was met.

For the Spring 2022 semester, the Indirect Measure was 86% and the Direct Measure was 88.2%. Assuming an equal weight for indirect and direct measures the composite grade was 87.1 % indicating that the target value was met.

There were more than 40 attendees at the final presentation and included IAB members, faculty, former students and guests. Verbal response from the audience can be summed up in just one comment. “The presentations just keep getting better every year.”

Proposed Actions for Course Improvement:

The complete Faculty Course Assessment Report for CMGT 44000 is included in the appendix for the Quality Improvement Plan. The following proposed actions documented here relate specifically to SLO 2 - Create Oral Presentations.

After discussions with the faculty, group industry members, and IAB members, the course instructors propose a few modifications for the following course offering.

- Solicit comments from the reviewers on suggestions for improving the rubric.
- Minor wording changes in the rubric and upgrade point values.
- Distribute the rubric to the reviewers a week before the presentations.

3. Create a Construction Project Safety Plan.

CMGT 42000: Safety and Inspection (Mark Steinhofner)

The Direct Measure for SLO 3 was to create the Safety Plan. Students learn various subjects related to construction safety including OSHA regulations and practices. Students’ learning objective is assessed by a final report to create a safety plan.

Term	N	Criteria	Average Percent	Target Percent
Spring 2022	18	Report	95.1	75
Fall 2022	20	Report	95	75

The maximum grade (points) for the Work Report is 100. The table below shows the average grade 95% in the percentage exceeding target percent (75%). The indirect measure (88%) indicates that the target value was met.

Proposed Actions for Course Improvement:

1. Integrate OSHA 30 hours certification. The material covered in CMGT 42000 closely aligns with the requirements necessary for OSHA 30 certification. It would be beneficial for the CM program to integrate OSHA 30 training for future offerings of CMGT 42000. As many of the students are either interns in the construction industry or work in construction in a different capacity, this is also a recommendation on behalf of the students. → the course instructor is qualified to deliver OSHA 30 hours certification and the students receive at the end of the semester.
2. Adjust time allotment for safety presentation from 20-30 minutes to 15-20 minutes per student. Although the longer time allotment worked well with smaller class sizes in the past, it was necessary to use additional sessions to accommodate the time necessary for 35 presentations. Students could adequately cover their safety topic in 20-15 minutes. Overall, the students not only gained knowledge from their own safety research, they were also able to learn from their peers and also participate in the peer valuation process. → the instructor revised student presentations

3. Upgrade safety plan grading rubric. Refine criteria and provide students a detailed version of specific expectations. → The course uses an upgraded rubric for the report evaluation.
4. Integrate case studies by analyzing current safety violations under investigation. Students will predict outcome based on OSHA CFR 1926 standards. This project will give students the opportunity to learn through inductive reasoning and team based learning. Teams will work together to investigate and determine the cause of the safety breach. → the instructor included case studies in the updated course materials.
5. Invite industry safety program managers. Students will benefit from interacting with safety professionals in the classroom. Schedule four speakers per semester from four different construction disciplines to provide a real life connection between classroom work and industry application. → the instructor is an active and certified OSHA trainer for industry professionals.

4. Create Construction Project Cost Estimates.

CMGT 31000: Cost Estimating (Matt Ray)

The Direct Assessment consists of a lab assignment (custom designed to provide students an opportunity to create cost estimates covering multiple divisions for a given project throughout the semester) and a final group project (represents a culmination of lab experiences, creating a cost estimate and submit a bid on a similar project).

Term	N	Direct Assessment	Average Grade	Average Percent	Target Percent
Spring 2020	18	Concrete Lab	40/50	79	75
	19	Final Project	110/150	73	75
Fall 2021	17	Concrete Lab	40 /50	81	75
	21	Final Project	119 /150	79	75
Spring 2022	15	Concrete Lab	39/50	78	75
	16	Final Project	124/150	83	75

The course includes multiple labs, with the Concrete Lab being one example. The individual labs are submitted each week as smaller portions of a larger lab project while the Final Project includes a larger portion of a project including multiple divisions, markups and additional submissions as part of the bidding process. Individual labs combined make up 15% of the final grade while the final project alone counts for 20% of the final course grade. The final project is the culmination of the course experience and provides evidence of a student's ability to successfully create a cost estimate. An average score of 79% was achieved for the direct assessment of SLO 4 - Create Construction Project Cost Estimates for CMGT 31000.

The target for the direct assessment is that students would achieve an overall average of 75% or better based on total grades for each assessment. Both the Concrete Lab and the Final Project were greater than 78% indicating that the target value was met.

Proposed Actions for Course Improvement:

For SLO 4, students are provided with a significant amount of time in class to work on the labs as well as the final project, but students are not required to stay until the lab session is over. They have been required to stay for the instructional piece of the lab. Students commented that they wish that they were required to stay until the end of lab sections to hold them accountable. Future course sections will require students to remain in lab until their work is complete or time runs out. Student

achievement on the final project is impacted by students not taking advantage of class time to work on their project. Students also requested that lab instructions be recorded and posted as a resource to refer back to when completing their work. This was implemented in Spring 2022. There was positive feedback from students that used the videos as an additional resource. Many students still preferred to email and ask questions as opposed to watching the videos. Overall, the videos had a positive impact as an additional resource for students.

5. Create Construction Project Schedules.

CMGT 32000: Scheduling and Project Control (Brad Bastin)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	18	Project Schedule in MS Project	94%	75%
		Garage WBS	89%	75%
		Garage MS Project with Updates	86.3%	75%
Fall 2022	15	Lab #1 – Creating a Schedule	77%	75%
		PROCORE Generate a WBS	64%	75%
		PROCORE Generate a Schedule	80%	75%

The target for the overall average of the total grades should be at least 75%. The Indirect Measure was 83% and the Direct Measure was 82%. Based on the perception of graduating seniors (Indirect Measure), they felt confident in creating project schedules. The Direct Measure has been improved since the initial accreditation. Direct measures met the target value (75%) except Procure Generate a WBS assignment during Fall 2022. The instructor will revise the WBS assignment to improve the student performance for the next semesters.

Proposed Actions for Course Improvement:

The complete Faculty Course Assessment Report for CMGT 32000 is included in the appendix for the Quality Improvement Plan. The following proposed actions relate specifically to SLO 5 - Create Construction Project Schedules.

Software Program

The course uses MS project as the main scheduling software program, but the instructor plans to add Primavera 6 to meet the industry demand.

Canvas

The course materials and assessments are fully integrated into the Canvas modules.

Switching to In-person delivery

The course is currently available 100% web-based delivery option only due to the adjunct instructor's work schedule conflict. However, the instructor will resume to in-person delivery option as the schedule becomes available.

6. Analyze Professional Decisions Based on Ethical Principles.

CMGT 11000: Introduction to Construction Management (Bill White)

The Direct Measures consists of one assignment. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	30 / 33*	Score on Ethics assignment	81.53%	75%
Spring 2022	17 / 18*	Score on Ethics assignment	84.94%	75%
Fall 2022	24 / 29	Score on Ethics Assignment	77.83%	75%

*Submitted assignment / total class enrollment at the time of the assignment

The assignment continues to evolve every semester as new case studies are introduced. As a follow-up, personal and construction – related ethical dilemmas are now presented in subsequent lectures where students are asked to respond via Top Hat questions. The purpose is to have students see how their peers respond to a given ethical situation and appreciate where their personal ethical boundaries compare to the class as a whole.

Proposed Actions for Course Improvement:

The target percent was exceeded for both semesters. Because the average percentage exceeded the target percentage for both semesters, no modification to this assignment appeared warranted. All submitted work is scanned through Turn-It-In.com to ensure plagiarism is held to a minimum. Additionally, it should be noted that this assignment indicator has been recorded every semester since spring 2018. The overall linear trend possesses a slightly positive slope with the lowest recorded average occurring in fall 2020 at 75.62% and the highest average in spring 2022 at 85%.

7. Analyze Construction Documents for Planning and Management of Construction Processes.

CMGT 33000: Construction Administration & Specifications (Bill White)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2020	11	SpecSearch	89.39%	75%
		Project Overall	78.00%	75%
		Executive Summary	68.36%	75%
Spring 2022	17	SpecSearch	87.41%	75%
		Project Overall	82.62%	75%
		Executive Summary	71.29%	75%

Since both the SpecSearch and Project Overall scores exceed the target score of 75%, no remedial action appears warranted. Indeed, the scores on these assignments have been tracked since fall 2017

and the linear trend line has a nearly flat to slightly positive slope, indicating that student comprehension and execution is either in line with expectations or slightly improving.

The Executive Summary continues to perform below expectations. This particular aspect of the semester project requires the student to review all of the data generated by the required content and derive conclusions. The data doesn't at first appear related but upon further thought, correlations can be made. For example the student can surmise that, based on the pay application amounts for a given month, the project must be behind schedule as the contractor is being paid for 65% work complete in one month when the project schedule indicates the same contractor should be 100% complete in the same month. Also, submittals are clearly behind schedule which would have an adverse impact on the project schedule.

Proposed Actions for Course Improvement:

The Executive Summary requires additional lecture time / in-class exercises to assist the student. Since fall 2020, additional time has been spent on internally manipulating the project budget, however instruction needs to address how project progress can be evaluated using the project management tools the course covers. While it should be noted that since fall 2020, the score has been on a positive trend (increasing from 68.36% to 71.39%) more work needs to be done.

8. Analyze Methods, Materials, and Equipment Used to Construct Projects.

CMGT 41000: Equipment and Field Operations (Dan Koo)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	18	Quiz	86.54%	75%
		Homework	81.98%	75%
		Midterm Exam	75.22%	75%
Fall 2022	20	Quiz	89.77%	75%
		Homework	77.32%	75%
		Midterm Exam	74.49%	75%

After the initial ACCE accreditation for the CEMT program, it was decided that the overall average of the total grades should be at least 75%. The Indirect Measure was 89% and the Direct Measure was 80.89%. Based on the perception of graduating seniors (Indirect Measure), they felt confident in creating project schedules. The Direct Measure showed a different outcome. The midterm exam result is approximately at the target percent and it is considered to be met the target.

The indirect measure for SLO 8 was assessed using the ACCE Student Learning Outcomes (SLO) Survey (Graduating Senior Exit Survey).

Proposed Actions for Course Improvement:

Based on the indirect/direct measurements and IUPUI course evaluation, the course has currently met the target for the proposed student learning outcomes. However, some students do not fully understand, apply, and analyze the field operations using various types of equipment. It is mainly because the real-world job site does not perform the proper level of analysis of the equipment

production, cost, and optimization of various plausible scenarios. Therefore, some students did not appreciate the value of theoretical analysis of the field operation. The course improvement is to reinforce the importance of theoretical knowledge for the analysis of field operations and brings more actual field examples performed by industry professionals so that the students can widen their view of the subject. One or two guest lectures were added to the course schedule and reinforced the course learning objectives.

The course objectives will be more specific rather than open-ended. The instructor will provide not only more specific conditions for analysis, but also open-ended problems that help an analytical thinking process.

The instructor proposes the following action items to improve the student learning outcomes:

- Inviting guest lectures who professionally plan, analyze, and make a decision on the heavy machine operations on the construction job site. → implemented from Spring 2022
- Introducing a construction simulation technique to optimize the heavy machine operations in the theory and actual project job site. → applying a simulation tool in future semesters
- Providing more in-class exercises to improve student’s understanding of the calculation problems. → added more quizzes and homework assignments to improve student learning experience and understanding

9. Apply Construction Management Skills as a Member of a Multi-Disciplinary Team.

CMGT 44000: Project Management (Marvin Johnson)

The Direct Measure for SLO 9 was the assignment, “Applying Construction Management Skills as a Member of a Multi-Disciplinary Team.” The maximum grade (points) for this individual assignment was 100 points. The table below shows the average individual grade for this assignment.

Term	N	Criteria	Average Percent	Target Percent
Fall 2019	8	Role-Playing Assignment	79.4%	75%
Fall 2022	17	Role-Playing Assignment	89.4%	75%
Spring 2023	21	Role-Playing Assignment	92.4%	75%

Since this is the initial ACCE accreditation for the CM program, it was decided that an overall average of the total grades should be at least 75%. The Indirect Measure (95%) and the Direct Measure (92.4%). Assuming an equal weight for each measure the composite grade was 94.6% indicating that the target value was met.

Overall, the student response to the questions proposed by the interviewer and based on the roles played by the students, were thoughtful and provided a depth of knowledge indicating that the students could apply their construction management skills to address the concerns from questions from other “non-construction” team members.

Proposed Actions for Course Improvement:

The complete Faculty Course Assessment Report for CMGT 44000 (previously CEMT 44700) is included in the appendix for the Quality Improvement Plan. The following proposed actions documented here relate specifically to the Multi-Disciplinary Team assignment.

There are several proposed actions that could enhance the application of construction management skills as members of a multi-disciplinary team, as outlined below and explained on the following page.

- In-class work session
- Questions related to multi-disciplinary teams at the oral presentations
- Separate meeting with group industry mentors to discuss multi-disciplinary teams

In-Class Work Session

Currently the assignment is done out of class. To possibly increase the effectiveness of the learning experience through class discussion, the assignment could be completed (or at least started in class). A third-party interviewer approach was implemented this semester, however, this format will be evaluated and assessed based on student results, faculty and IAB input.

Questions at the Oral Presentations

Prior to the oral presentations, seed questions could be distributed to industry members in attendance at the presentations. The quality of student response to questions could be documented on the rubric used to evaluate the oral presentations. Industry feedback to the student responses could also be documented.

Group Mentor Meeting

Each capstone group is assigned an industry mentor from the CM IAB. The mentor meets with the group approximately 4 or 5 times a semester to discuss project progress and to provide guidance for assembling their materials and organizing and refining their presentation materials. One of these meetings could be dedicated to a discussion of multi-disciplinary teams. Students would document the discussions and provide some response to “lessons learned.”

10. Apply Electronic-Based Technology to Manage the Construction Process.

CMGT 11000: Introduction to Construction Management (Bill White)

The Direct Measures consists of one assignment and five questions within one exam. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2020	21	Revit Project	83.02%	75%
		5 Final Exam Questions	69%	75%
Spring 2022	16	Revit Project	90.60%	75%
		5 Final Exam Questions	51%	75%
Fall 2022	29	Revit Project	71.83%	75%
		5 Final Exam Questions	46%	75%

The target for the overall average of the total grades should be at least 75%. The Indirect Measure was 81% and the Direct Measure was below the target in fall 2022. Based on the perception of graduating seniors (Indirect Measure), they felt confident in applying electronic-based technology to manage the construction process.

With the inclusion of the fall 2022 semester, the Revit software project has begun to trend slightly downward since fall 2017. However, because the previous semester (spring 2022) experienced a sharp increase, the drop for the fall 2022 semester may be a one-time anomaly. Modification doesn't appear to be warranted at this time. This performance indicator will be watched closely and should the score continue to drop for the spring 2023 semester, course/content modifications may be necessary.

The five exam questions that pertain to building information modeling (BIM) continue to be a struggle. The indicator on these five (5) questions was improving up until spring 2020 – the semester that all in-class instruction was suspended following spring break. In-class instruction continued to be disrupted until fall 2021. This decline in performance may have been affected by reducing the number of exams from four to two (midterm and final) in fall 2021. Reducing the number of exams was seen as an attempt at reducing exam anxiety for freshmen. Because of this exam reduction, students are now responsible for more material within the final assessment. The material that is covered by these questions is presented once in one lecture.

Proposed Actions for Course Improvement:

While the Revit project exceeded the 75% benchmark, the five exam questions did not. Even though an initial one-class assessment may not accurately capture the effectiveness of course material, given the unusually large class size the data merits a proactive approach to effect a positive learning outcome. Given that the weighted average missed the mark by 4%, additional class time will be spent addressing BIM and its capabilities.

Proposed Actions for Course Improvement:

Given the poor performance on this indicator, an additional assignment – probably within Top Hat – will be created that will review the concepts that are presented within these five questions. This will afford the student more time to interact with the material and reflect on its importance.

11. Apply Basic Surveying Techniques for Construction Layout and Control.

CMGT 15000: Surveying (Michael Conley)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Direct Measure for SLO 11 - Final Exam (Part I - Written and Part II - Practicum)

The table below shows the average grade for the Segment of class listed in the Criteria.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	21	Lab	96.64	75%
		Assignments	80.91	75%
		Final Exam (Part I - Written and Part II - Practicum)	78.96	75%
Fall 2022	13	Lab	93.21	75%
		Assignments	82.32	75%
		Final Exam (Part I – Written and Part II – Practicum)	80.57	75%

Proposed Actions for Course Improvement:

1. Improve measurable metrics on grading rubric: Enhance evaluation of measurable metrics by improving assessments for both the lab and lecture for student expectations.
2. Added technology capabilities: Add GPS base/rover technology into the coursework and add quantifiable direct measurables.
3. Upgrade grading rubric for lab grading: Refine grading criteria and provide students a detailed version of specific expectations.
4. Technical Drawing: This class requires students to prepare map from collected survey data. Students have struggled on CAD drawing. We are planning to introduce civil 3D software, c drafting.
5. Add data collection and analysis: Data collectors are dated and do not work well in cold weather. Integrated data collection with newer total stations will help measurable workflows for technical advancement in CAD drafting and processing.
6. Weather Contingency plan: Weather is an issue in Indiana because of spring semester rain and snow. During snowy and rainy days, it is difficult for students to go outside to conduct lab. We are planning to prepare few lab handouts to work inside the campus buildings and tailor them to the labs they would have done outside.

12. Understand Different Methods of Project Delivery and the Roles and Responsibilities of Constituencies Involved in the Design and Construction Process.

CMGT 33000: Construction Administration & Specifications (Bill White)

The Direct Measure consists of: selected midterm exam questions, A201 Lab Exercise “It’s About Time,” and a Procore lab exercise.

Term	N	Criteria	Average Percent	Target Percent
Fall 2020	11	1. Selected midterm exam questions	70.67%	75%
		2. A201 Lab Exercise “It’s About Time”	86.32%	75%
		3. Procore lab exercise	96.36%	75%
Spring 2022	17	1. Selected midterm exam questions	72.34%	75%
		2. A201 Lab Exercise “It’s About Time”	84.90%	75%
		3. Procore lab exercise	90.59%	75%

Overall the metrics associated with the three (3) direct measures satisfied the target criteria and therefore don’t require future course content modification. The one exception, direct measure #1 “Selected midterm exam questions”, while slightly below the target for both semesters, indicates an improvement trend such that course modification would appear premature. Knowledge of this slight metric deficiency will inform future lectures and appear within the midterm study guide to assist students when studying for the midterm exam.

As indicated in the table above, the average grade percentage for this outcome is 81.70%, which exceeds the benchmark of 75%. It must be noted that one indicator, the selected midterm questions, falls substantially below the 75% target and therefore deserves additional review.

Proposed Actions for Course Improvement:

No course modification appears warranted at this time.

13. Understand Construction Risk Management.

CMGT 44000: Project Management Capstone (Marvin Johnson)

The Direct Measure for SLO 13 was the “Risk Assessment Assignment.” The maximum grade (points) for this individual assignment was 80 points. The table below shows the average individual grades for this assignment.

Term	N	Criteria	Average Grade	Average Percent	Target Percent
Fall 2020	11	Risk Assessment	72.7 points	90.9%	75%
Spring 2021	17	Risk Assessment	67.1 points	83.9%	75%
Fall 2021	8	Risk Assessment	67.1 points	83.9%	75%
Spring 2022	24	Risk Assessment	64.3 points	80.4%	75%

After the initial ACCE accreditation for the CM program, it was decided that an overall average of the total grades should be at least 75%.

For Fall 2020, the Indirect Measure was (88%) and the Direct Measure was (90.9%). Assuming an equal weight for each measure the composite grade was 89.5% indicating that the target value was met.

For Spring 2021, the Indirect Measure was (88%) and the Direct Measure was (83.9%). Assuming an equal weight for each measure the composite grade was 86.0% indicating that the target value was met.

For Fall 2021, the Indirect Measure was (88%) and the Direct Measure was (83.9%). Assuming an equal weight for each measure the composite grade was 86.0% indicating that the target value was met.

For Spring 2022, the Indirect Measure was (88%) and the Direct Measure was (80.4%). Assuming an equal weight for each measure the composite grade was 84.2% indicating that the target value was met.

Overall, the class discussions following the assignment added value to the basic goal of understanding risk management. This concept will be expanded in the following section, Proposed Actions for Course Improvement.

Proposed Actions for Course Improvement:

The complete Faculty Course Assessment Report for CEMT 44700/CMGT 44000 is included in the appendix for the Quality Improvement Plan. The following proposed actions documented here relate specifically to the Risk Assessment Assignment and the topic of construction risk management, in general.

It is anticipated that the topic of risk management will be enhanced in future course offerings. Documentation of the results of the class discussions is needed which will be accomplished with a follow up assignment.

The assignment will concern risk management as applied to the current capstone project. Students will be required to develop a Risk Management Plan, for example:

- Define at least five (5) risks that are owned by the contractor (i.e., construction management team) that are specifically related to the *current capstone project*.
- Create a Risk Management Plan of how those risks are monitored and controlled throughout the project.

A framework will be created to assist the students in developing the Risk Management Plan. A tentative outline of the plan is provided below. Additional insight will come from the industry mentors.

1. Risk Identification (what are the risks?)
2. Risk Responsibility (who owns the risks?)
3. Risk Assessment (what is the impact of the risks and how are the risks measured and ranked?)
4. Risk Response (what are measures for addressing the risks?)
5. Risk Mitigation (what is the contingency plan to deal with the risk should it occur?)
6. Risk Tracking and Reporting (what documentation is required?)

The Risk Management Plan will become part of the documentation for the Project Binder and part of their oral presentation. In addition, each group will create a Risk Assessment Matrix, similar to the example below, where each of their project specific risks are identified and assigned a measure of probability.

Appendix A – Example Risk Assessment Matrix

Probability of Occurrences			Catastrophic	Critical	Moderate	Minor	Negligible
Definition	Meaning	Value	(A)	(B)	(C)	(D)	(E)
<i>Frequent</i>	<ul style="list-style-type: none"> • Occurs frequently • Will be continuously experienced unless action is taken to change events 	5	5A	5B	5C	5D	5E
<i>Likely</i>	<ul style="list-style-type: none"> • Occur less frequently if process is corrected • Issues identified with minimal audit activity • Process performance failures evident to trained auditors or regulators 	4	4A	4B	4C	4D	4E
<i>Occasional</i>	<ul style="list-style-type: none"> • Occurs sporadically • Potential issues discovered during focused review. 	3	3A	3B	3C	3D	3E
<i>Seldom</i>	<ul style="list-style-type: none"> • Unlikely to occur • Minimal issue identification during focused review 	2	2A	2B	2C	2D	2E
<i>Improbable</i>	<ul style="list-style-type: none"> • Highly unlikely to occur 	1	1A	1B	1C	1D	1E

Risk Levels:

- Risk is High for codes 5A, 5B, 5C, 4A, 4B, 3A
- Risk is Medium High for codes 5D, 5E, 4C, 3B, 3C, 2A, 2B
- Risk is Medium Low for codes 4D, 4E, 3D, 2C, 1A, 1B
- Risk is Low for codes 3E, 2D, 2E, 1C, 1D, 1E

14 Understand Construction Accounting and Cost Control.

CMGT 33000: Construction Administration & Specifications (Bill White)

The Direct Assessment consists of a specific question embedded within the semester project. The overall assignment is for the student to create a new project within the Procore project management

software application by using standard construction documentation. The student must then answer 15 questions utilizing documentation created within Procore. For this SLO question #4 asks the student to identify budget issues. The required response is for the student to produce the Procore Standard Budget and to modify it as necessary to ensure it remains balanced and that it reflects the budget-related activity within the project, including pay applications, subcontractor contracts, change orders, etc.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	17	Question #4: "What does the project budget detail look like as of today?"	80.59%	75%
Fall 2022	11	Question #4: "What does the project budget detail look like as of today?"	72.73%	75%

While this table indicates only two semesters, it can be compared to a larger data set extending across nine (9) semesters. While fall 2022 falls below target, it must be noted that this indicator was improving in the previous two semesters (fall 2021 and spring 2022). Nevertheless, because the overall trendline is pointing downward, additional class time and in-class exercises have been implemented.

Proposed Actions for Course Improvement:

Because the most recent assessment value of 72.73% falls below the target of 75%, additional class time and in-class exercises have been added to address the apparent downward trend in scores over the four year period. One in-class exercise utilizes a Microsoft Excel spreadsheet version of the Procore Standard Budget tool to simplify the data and to assist students in recognizing the consequences of budget manipulation. The outcome for spring 2023 will be monitored and should the score not improve, additional instructional modifications will be considered.

15. Understand Construction Quality Assurance and Control.

Two Direct Measures

CMGT 35000: Material Testing (Marvin Johnson)

The Direct Measure #1 for SLO 15 was the "Wood Lab Reports". The maximum grade (points) for this individual assignment was 130 points. The table below shows the average individual grades for this assignment.

Term	N	Criteria	Average Grade	Average Percent	Target Percent
Fall 2021	27	Wood Lab Report	120.0 points	92.3%	75%
Spring 2022	10	Wood Lab Report	126.3 points	97.2%	75%
Fall 2022	18	Wood Lab Report	128.2 points	98.7%	75%

Since this is the initial ACCE accreditation for the CM program, it was decided that an overall average of the grades should be at least 75%.

For the Fall 2021 semester, the Indirect Measure (83%) and the Direct Measure from the Wood Lab Reports was (92.3%). Assuming an equal weight for each measure the composite grade was 87.7% indicating that the target value was met.

For the Spring 2022 semester, the Indirect Measure (84%) and the Direct Measure from the Wood Lab Reports was (97.2%). Assuming an equal weight for each measure the composite grade was 90.6% indicating that the target value was met.

For the Fall 2022 semester, the Indirect Measure (92%) and the Direct Measure from the Wood Lab Reports was (98.7%). Assuming an equal weight for each measure the composite grade was 96% indicating that the target value was met.

Overall, the class discussions and Labs following the Lecture assignments added value to the basic goal of understanding Quality Control and Assurance of various construction materials. This concept will be expanded in the following section, Proposed Actions for Course Improvement.

Proposed Actions for Course Improvement:

Related specifically to SLO 15 - Understand Construction Quality Assurance and Control and referring to established construction quality assurance and control standards, such as ASTM, AASHTO and INDOT, students will be encouraged to research and investigate these standards, especially as these standards relate to the construction drawings and specifications of every commercial project, and some residential projects.

The Direct Measure #2 for SLO 15 was the “Proctor Test Report”. The maximum grade (points) for this individual assignment was 30 points. The table below shows the average individual grades for this assignment.

Term	N	Criteria	Average Grade	Average Percent	Target Percent
Fall 2021	18	Proctor Test	23.28 points	78%	75%
Spring 2022	16	Proctor Test	24 points	80%	75%
Fall 2022	20	Proctor Test	26.45 points	88%	75%

Since this is the initial ACCE accreditation for the CM program, it was decided that the overall average of the grades should be at least 75%.

For the Fall 2021 semester, the Indirect Measure (83%) and the Direct Measure from the Proctor Test Reports was (78%) indicating that the target value was met.

For the Spring 2022 semester, the Indirect Measure (84%) and the Direct Measure from the Proctor Test Reports was (80%) indicating that the target value was met.

For the Fall 2022 semester, the Indirect Measure (92%) and the Direct Measure from the Proctor Test Reports was (88%) indicating that the target value was met.

Overall, the class discussions and Labs following the ASTM standards added value to the basic goal of understanding Quality Control and Assurance of various soil conditions.

Proposed Actions for Course Improvement:

Students will be encouraged to research and investigate other construction standards related to quality assurance and control for construction projects.

Course improvement will include:

1. Introduction of construction quality assurance and control (QA/QC) plan which was actually implemented in the construction project.
2. Research on the QA/QC cases that affect the construction industry

3. Examples of QA/QC in the construction documents such as contracts, specifications, and drawings.

16. Understand Construction Project Control Processes.

CMGT 32000: Scheduling and Project Control (Brad Bastin)

The Direct Assessment consists of three assignments, as listed below.

Assignment 3-1: Activity on Arrow Diagram

Assignment 6-1: Resource Leveling

Lab 7: Project Scheduling Update

The average grades for the eight assignments and the exam are shown below.

Term	N	Criteria	Average Percent	Target Percent
Fall 2021	24	Assignment 3-1	75%	75%
		Assignment 6-1	82%	75%
		Lab 7	74%	75%
Fall 2022	15	Assignment 3-1: Basic Networks	81%	75%
		Assignment 6-1: Resource Leveling	81%	75%
		PROCORE Project: Crown Hill National Cemetery	80%	75%

The target for the overall average of the total grades should be at least 75%. The Indirect Measure was 88% and the Direct Measure was 79%. Based on the perception of graduating seniors (Indirect Measure), they felt confident in creating project schedules. The Direct Measure has been improved since the initial accreditation. Direct measures met the target value (75%). The instructor continuously revises the assignments to enhance student learning objectives.

Proposed Actions for Course Improvement:

Related to SLO 16 - Understand Construction Project Control Processes, there are a few actions that I plan to incorporate into the class. The plan is to insert a question or two into the Individual Instructor Report specifically related to Project Control. In addition, questions will be included in the course survey for the other SLOs addressed in this course (SLO 5 - Create a construction project schedule ([supporting course](#)) and SLO 10 - Apply electronic-based technology to manage the construction process ([supporting course](#)). No major changes are expected for the eight assignments that are used to assess project controls.

An important point to emphasize to the students next semester is the value of completing the course evaluations. I will make an exerted effort to do just that.

17. Understand the Legal Implications of Contract, Common, and Regulatory Law to Manage a Construction Project.

CMGT 33000: Contract Administration & Specifications (Bill White)

The Direct Measures consisted of: 8 questions from the midterm exam (Delivery Systems, General Conditions, and Liens) and 7 questions from the final exam (RFI's, Reports, Changes, Pay Applications). Following are the calculations associated with each assessment followed by the summary.

Direct Measures Calculated Summary	Weighted Average Grade %	Target
8 Midterm Exam Questions SP21	72.8%	75%
7 Final Exam Questions SP21	64.6%	75%
8 Midterm Exam Questions FA22	74.6%	75%
7 Final Exam Questions FA22	66.2%	75%

The metrics for this course have been recorded for every semester since spring semester 2018. Prior to fall 2021, both indicators were remaining steady at or above 85% or improving significantly. Also, the total correct for the final exam in spring of 2020 was 88%. However, with the pandemic and resultant shift in course delivery to an online format, the results plummeted. The fall 2020 semester saw the final exam score drop to 67%. For spring 2021 semester, the results clearly did not recover. Additionally, test content was revised significantly as the final exams were given online resulting in some questions not appearing on the exam. This outcome was originally intended to utilize ten (10) questions for both the midterm and final however only 8 and 7 appeared. The scores for fall 2022 have remained consistent indicating no significant decline or improvement.

Proposed Actions for Course Improvement:

Because course instruction was profoundly affected during the pandemic, course modification to address the apparent performance deficiencies appears premature. However, now that pandemic related course alterations have been lessened/eliminated, exam content will be restored to include all ten questions for both the midterm and final exams effective spring 2023. The resultant indicators will be reviewed and, should the deficiencies persist, modifications will be made to the course presentation material.

18. Understand the Basic Principles of Sustainable Construction.

CMGT 11000: Introduction to Construction Management (Bill White)

The Direct Measures consisted of: 6 questions from the Final Exam Below are the calculations associated with each assessment followed by the summary.

Direct Measures Calculated Summary	Weighted Average Grade %	Target %
Final Exam (6 Questions) FA19	51%	75%
Final Exam (6 Questions) FA21	44%	75%

The overall weighted average of 47% is significantly below the target of 75%. In reviewing the previous assessment (spring 2018) of this SLO, four (4) possible remedies were proposed to improve this outcome. Unfortunately, the Covid pandemic disrupted course content and instructional delivery such that one alternative – adding a homework assignment – was not added until fall 2021. The homework assignment required the student to read an article pertaining to the contractor's role in implementing LEED and then answer questions within Top Hat. The performance on this SLO metric improved in spring 2022 by 4%.

Proposed Actions for Course Improvement:

As can be seen in Figure 2, the performance on this SLO was steadily improving until the fall semester 2021 when it took a 22% drop following spring 2021. Corrective actions will be / have been implemented including:

1. Adding a homework assignment requiring the student to read an article about the role the general contractor plays in implementing LEED. The assignment requires the student to answer questions within the Top Hat application.
2. Make all in-class Top Hat presentations available to students for study. This material includes both the Powerpoint presentation slides and the embedded questions within the Top Hat environment. The in-class embedded questions closely correlate to the questions presented in the exam.
3. Refine the exam study guide to ensure students are aware that this material will be covered on the exam.
4. Rescheduling the module so that it occurs earlier in the semester. This would offset the problem noted in #3 above and it may receive more serious consideration when incorporated well within the regular semester.

19. Understand the Basic Principles of Structural Behavior.

CMGT 36000: Strength of Materials (Kwonsik Song)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2022	15	Quiz	82.50	75
		Homework	75.07	75
		Midterm Exam	83.00	75
Spring 2023	12	Quiz	86.11	75
		Homework	77.86	75
		Midterm Exam	71.86	75

After the initial ACCE accreditation for the CMGT program, it was decided that the overall average of the total grades should be at least 75%. The Indirect Measure was 87.5% and the Direct Measure for the midterm exam in Spring 2023 was only below the target. I decided not to average those values. Based on the perception of graduating seniors (Indirect Measure), they felt confident in creating project schedules. The Direct Measure showed that the target value (75%) was not met for the Direct Measure of Midterm Exam in Spring 2023. This is mainly because students have an insufficient understanding of basic trigonometry and the Pythagorean theorem which is the starting point for determining results forces and support reactions.

Proposed Actions for Course Improvement:

Based on the indirect/direct measurements and IUPUI course evaluation it is evaluated that the course has provided the proposed student learning outcomes. Students were able to understand load types and basic mechanisms of structural systems in response to external forces. However, some students had difficulties in performing basic calculations related to resultant forces. The root cause was a lack of understanding of basic trigonometry and Pythagorean theorem which are the starting point of determining results forces. As a consequence of the shortage, they found wrong answers or stopped solving relevant problems. Another area that some students failed in was support reaction calculations. This failure happened because they were confused about distinguishing which support

reactions take place depending on the type of support. Therefore, in order for students to perform basic calculations regarding resultant forces and support reactions, the course improvement is to allocate time for students to practice trigonometry problems as well as the Pythagorean theorem at the beginning of the coursework. This will help increase students' abilities to identify the magnitude and direction of resultant forces and, in turn, understand how structures behave depending on multiple external forces. In addition, students will be provided with more in-class exercises to improve their understanding of which types of supports are used in structural systems and how they resist external forces.

20. Understand the Basic Principles of Mechanical, Electrical and Piping Systems.

CMGT 25000: Mechanical and Electrical Systems (Kwonsik Song)

The Direct Measures consists of three assignments. The table below shows the average grades and percentages for the direct assessments.

Term	N	Criteria	Average Percent	Target Percent
Fall 2022	23	Quiz	84.10	75
		Homework	92.75	75
		Midterm Exam	80.17	75
Spring 2023	7	Quiz	71.42	75
		Homework	88.09	75
		Midterm Exam	71.47	75

After the initial ACCE accreditation for the CMGT program, it was decided that the overall average of the total grades should be at least 75%. The Indirect Measure was 84% and some of the Direct Measure was below the target. I decided not to average those values. The Direct Measure showed that the target value (75%) was not met for the Direct Measure of Quiz and Midterm Exam in Spring 2023. This is mainly because students have a lack of understanding of how sanitary systems operate in buildings.

Proposed Actions for Course Improvement:

Based on the indirect/direct measurements and IUPUI course evaluation, it is evaluated that the course has provided the proposed student learning outcomes. Through the quiz, homework, and exam, students showed their understanding of key components of mechanical and electrical systems in buildings. However, basic calculations related to piping systems were the area where course improvement needs to be suggested. This work is important because it helps improve the ability to read the sanitary drainage plan and understand key components of sanitary drainage systems in buildings. Also, students are able to understand how wastewater and waterborne waste flow in the sanitary drainage system. For these reasons, the instructor allocated time for students to practice several sanitary system design problems in the classroom. Also, relevant homework was given to students. Nevertheless, some students incorrectly determined the size of sanitary pipes as well as the demand for drainage and water supply. The main cause was a lack of understanding basic principles of sanitary system design. Therefore, the course improvement is to create a team exercise that helps team members share their ideas about sanitary system design and find correct sanitary system design options. Also, by providing students with more in-class exercises, they will be able to increase their understanding of how sanitary systems need to be designed.

Course Learning Outcomes

Data for the Course Learning Outcomes are collected by the course instructors every semester and evaluated annually in the form of a Course Assessment Report which is reviewed by the Program Director and the CM Curriculum Committee. In addition, the CM IAB evaluates Course Learning Outcomes during course reviews. In addition, a comprehensive review of Course Learning Outcomes is conducted during the creation of an ACCE Self-Study report.

First Destination Survey (2017-2022)

Post-Graduate Plans	Percent
Accepted post-graduation employment	100 %
Will attend graduate School	0
Actively seeking employment	0

Salary Ranges			
Year	Range of Salary	Average Salary	Number of Reporting
2017	\$18,000-\$65,000	\$53,561	26
2018	\$35,000-\$84,000	\$56,306	24
2019	\$40,000-\$72,000	\$55,988	35
2020	\$55,000-\$109,000	\$69,677	22

2021 Salary Range Data (Excerpt from Graduate Exit Survey)	
Range of Salary	Number of Reporting
\$40,000 - \$45,000	1
\$45,000 - \$50,000	1
\$50,000 - \$55,000	1
\$55,000 - \$60,000	6
\$60,000 - \$65,000	2
> \$65,000	6
Other	1

Spring 2022 Salary Range Data (Excerpt from Graduate Exit Survey)	
Range of Salary	Number of Reporting
\$40,000 - \$45,000	0
\$45,000 - \$50,000	2
\$50,000 - \$55,000	1
\$55,000 - \$60,000	1
\$60,000 - \$65,000	3
> \$65,000	0
Other	0

Complete results of the 2017 - 2022 First Destination Survey can be found in Volume I: 5.1.7.2 Employment Statistics. The target was that at least 90% of graduates would be meaningfully employed in the construction industry. In 2016 it was 100%. This was the first year that 100% was

reported. Since 2016, all CM graduates have successfully placed in construction. The demand for construction management students (full-time and internships) just in the central Indiana area is far greater than the number of CMGT students and graduates.

Trends from 2012 through 2020 indicate fewer students attending graduate school or entering the military on a year-by-year comparison.

Since the construction industry demand is at an all-time high, the average salary and job placement trend have continuously increased.

Graduating Senior Exit Interviews/Surveys

Question (from Interviews from 2019 and S 2020)	Percent
What is your overall satisfaction level with your experience in the CMGT program at IUPUI?	87.4%
How well prepared are you for your career in the construction industry?	90.5%

For the written exit interview question, rating of at least 80% was expected and achieved. The IAB reported that 100% of the graduation seniors participated in the exit interviews.

Questions excerpted from the senior exit surveys	Rating F 2020 (n=10)	Rating 2021 (n=25)	Rating 2022 (n=42)	Average Percent (%)
The CM program’s courses have met my individual interests and career goals.	4.5	4.1	4.14	85%
My experiences with the CM program provided me the opportunities to learn from faculty who used effective teaching methods.	4.4	4.25	4.24	86%
My experiences with the CM program provided me with the opportunities to learn from effective lab exercises and computer skills.	4.5	3.8	4.26	84%
My experiences with the CM program provided me with the opportunities to gain real-world construction management experiences during internships.	4.4	4.1	4.5	87%

Note: Likert scale (5 will be most satisfied or agreed, 1 will be least satisfied or disagreed), two semesters are combined to get the yearly data results.

The CM program moved the graduating senior exit interviews to an online survey format in Fall 2020. Canvas was used as an online survey platform, but it is moved to Qualtrics in Fall 2021. The table above provides a summary of the graduating senior exit survey assessment and the overall average percentage is above 80%.

The Graduating Senior Exit Interviews/surveys include other questions. The result will be available to the visiting team during the site visit.

Employer Evaluation Survey - CMGT 39000 (Internship)

Data for the Employer Evaluation Survey is compiled from the following semesters: Summer 2020, 2021, and 2022. The following scale is used by the employers (supervisors) to assess the performance of the interns: 5=Exceptional skill level; 4=Above average skill level; 3=Adequate/average skill

level; 2=Limited/minimal skill level; and 1= Skill level lacking. A composite average skill level is reported in the table below.

Skill Assessed	Skill Level Rating Summer 2020 (n=19)	Skill Level Rating Summer 2021 (n=26)	Skill Level Rating Summer 2022 (n=23)
1. Demonstrates oral communication skills required for the position.	4.3	4.4	4.3
2. Demonstrates written communication skills required for the position.	4.0	4.4	4.1
3. Analyzes situations and takes appropriate action.	4.0	4.2	4.3
4. Resolves problems in a timely manner.	4.2	4.3	4.3
5. Has the technical skills required for the position.	4.1	4.3	4.4
6. Has the ability and is willing to learn new technical skills and enhance existing skills.	4.7	4.7	4.7
7. Makes positive impact on work team by establishing rapport and credibility.	4.5	4.3	4.5
8. Assumes appropriate leadership roles.	3.9	3.8	4.1
9. Produces high quality work.	4.1	4.3	4.4
10. Uses good judgement and establishes priorities.	4.3	4.2	4.3
11. Practices ethical behavior.	4.6	4.6	4.5
12. Takes initiative to get a job done including overcoming obstacles.	4.4	4.3	4.5
13. Sets and communicates appropriate goals and follows-up with results.	4.2	4.2	4.2

How would you assess the intern's overall performance? (n=41)	Overall Performance Summer 2020 (n=19)	Overall Performance Summer 2021 (n=26)	Overall Performance Summer 2022 (n=23)
Outstanding	47%	50%	57%
Above Average	42%	42%	43%
Satisfactory	11%	4%	0%
Below Average	0%	4%	0%
Unsatisfactory	0%	0%	0%

In the survey there is a section for “other comments” that are available for the visiting team during the site visit. The target performance criteria is that 80% of the interns should receive an Outstanding or Above Average performance rating. The actual performance rating was 84% which indicates that this benchmark was met.

Student Evaluation Survey - CMGT 39000 (Internship)

Data for the Student Evaluation Survey is compiled from the following semesters: Summer 2020, 2021, and 2022. The following scale is used by the students (interns) to assess various aspects of the internship experience: 5 = Strongly Agree; 4 = Agree; 3= Somewhat Agree; 2=Disagree 1=Strongly Disagree. A composite average skill level is reported in the table below.

Respond to the Following Comments	Rating 2020 (n=20)	Rating 2020 (n=28)	Rating 2020 (n=24)
1. My level of responsibility was appropriate and engaging.	4.7	4.4	4.7
2. This experience helped focus my career direction and goals.	4.8	4.6	4.8
3. I increased my knowledge and developed realistic expectations of the world of work.	4.8	4.6	4.8
4. I contributed as a member of the team.	4.5	4.6	4.8
5. They provided good orientation and training.	4.5	4.5	4.5
6. My workspace was adequate.	4.7	4.7	4.7
7. The atmosphere was professional.	4.5	4.7	4.8
8. This experience was positive.	4.7	4.7	4.8
9. My education prepared me for this experience.	4.3	4.3	4.0
10. I received support from my academic department to engage in this experience.	3.6	3.5	3.6

In the survey there is a section for “other comments” that are available for the visiting team during the site visit. The target performance criteria was 80% of the interns should Strongly Agree or Agree that the internship experience was positive. The actual performance rating was 4.7 which translates to 94% which indicates that this benchmark was met.

CM IAB Course Reviews

CM courses were selected for review by CM IAB members. The review included a meeting with the course instructor to discuss the syllabus, textbook, course materials, topical outline, and class/lab presentation materials. This process included a classroom/lab visit and a written report. The course instructor, in conjunction with the CM IAB reviewer, selected a mutually convenient time to visit the class. The CM IAB Course Review Reports were compiled by the reviewer and shared with the course instructor and Program Director. The reports consisted of the following sections:

CM IAB Course Review Report contains:

- Course: (Number and Title)
- Instructor: (Name)
- IAB Reviewer: (Name)
- General Comments and Observations
- Suggestions for Course Improvement

For a variety of reasons, not all courses that were on the schedule to be reviewed were reviewed. Several of the Course Review Reports were considered superficial, at best. The CM IAB, in conjunction with the Program Director, has developed a “new” course review process and procedures which will be implemented during the 2018 fall semester. Basically, a more rigorous approach to course review. It is anticipated that this updated approach will provide meaningful results to the course instructors.

CM IAB Course Review Reports are present in Appendix 3 in Section 9.5 Plan Implementation.