

Final Assessment Report AY 2020-2021

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College of Engineering, Computer Science, and Construction Management
California State University, Chico*



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This **Final Assessment Report (FAR)** provides a summary of various assessment results and the action plans resulting from the data analysis and implementation of the Construction Management Departments **Quality Improvement Plan (QIP)**, as required by its accrediting body, the **America Council for Construction Education (ACCE)**.

The **FAR** is compiled on an academic year cycle and is based upon the current **QIP** as of the date of the report. The applicable **QIP** can be found on the **Construction Management Department (CMGT)** website:

<http://www.csuchico.edu/cm/acce-accreditation/quality-improvement-plan.shtml>. During the last academic year the strategic plan was revised and is effective as of Fall 2020.

Any minor deviations from the applicable plan are called out in the report, when and if, they occur.

History of Modifications to the Quality Improvement Plan:

Edition	Date	Assessment	Purpose
1	S2015	AY 2016-2017	Memorializing the Educational Units Strategic Plan, Assessment Plan, and Assessment Implementation Plan.
2	S2017	AY 2017-2018	Documenting revisions to the Degree Program Outcomes (DPOs were reduced from 27 to 6 items to provide a better focus for the Educational Unit).
3	F2018	AY 2018-2019	The stated performance criteria for all SLO direct assessments were increased to 85% of the students shall earn a 73%, or better.
4	S2020	AY 2019-2020	The QIP has been reformatted to match the ACCE Document 103, Section 9 numbering system. The strategic plan and mission statement have also been updated.
5	S2021	AY 2020-2021	The stated performance criteria for all SLO indirect assessments were changed from 4.0/5.0 to 3.75/5.0 on the Likert Scale. DPO 6 has been changed from Graduation Initiative (GI2025) to Chico State's Hispanic-Serving Institution (HSI) Initiatives.

Definitions

For consistency with the ACCE standards, the following definition clarifications are provided for the reader of this document:

Educational Unit: ACCE recognized there are units at institutions of higher learning composed of faculty and staff capable of teaching or conducting research. These units typically offer Degree Programs with which they are affiliated. When the words *Educational Unit* are used in this document it is synonymous with "Department of Construction Management", "Department", "Construction Management", and "CMGT".

Degree Program: A Degree Program is an educational system with identified academic coursework, containing the body of knowledge necessary to obtain a college or university degree in that field of

study. When the words *Degree Program* are used in this document, it is synonymous with “Bachelors of Science in Construction Management”.

Faculty: The individuals that comprise the Educational Unit and are responsible for the creation and dissemination of the curriculum for the Degree Program.

Industry Advisory Council (IAC): A body of individuals made up of interested construction industry management professionals and Chico State Construction Management Alumni. Their purpose is to remain engaged with the Educational Unit and provide review and guidance of the Degree Program.

Industry Advisory Council Curriculum Committee (IAC CC): A subset of the IAC body that is specifically tasked with assisting the Educational Unit in reviewing the current curriculum and providing suggestions for modifications and additions to maintain currency with the evolving construction industry.

Curriculum and Accreditation Committee (CAC): A subset of faculty within the educational unit responsible for guiding the degree program in all matters of curriculum and accreditation.

Final Assessment Report
Academic Year 2019-2020
Bachelor of Science in Construction Management

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Introduction

This year's Final Assessment Report (FAR) includes the assessment results from Academic Year (AY) 2020-2021. The Degree Program was recently reaccredited for the next six years by the American Council of Construction Education (ACCE). The department strives to complete this report and the resulting Quality Improvement Plan meeting by December 1st of each year.

The next reaccreditation cycle will begin in Spring 2027 with the delivery of a new self-study ACCE (Document 102B) to the ACCE Visiting Team (VT) Chair. The VT will review the self-study in to resolve any questions they may have regarding the self-study, followed by the VT visiting the Chico State campus in Fall 2027. The results of the self-study will be provided to the ACCE Accreditation Committee who will make a recommendation for action to the ACCE Board of Directors at their Mid-Year Conference in February 2028.

Degree Program On-going Improvements

- The Degree Program continues to review and revise the curriculum on an annual basis to satisfy recommendations by our industry partners.
- Our faculty meet weekly as part of our Curriculum and Accreditation Committee (CAC) as well as monthly with our Industry Advisory Council Curriculum Committee (IAC CC) to accomplish these improvements.
- The CAC has been committed to reviewing each of the SLOs in detail to determine if the SLO definitions are accurate if the curriculum contains the appropriate content for the SLO definitions and any resulting action plans. All proposed revisions are submitted to the IAC CC for review and comment before adoption. At three (3) SLOs per semester, this review process is slated to take two (2) more years to complete the full review cycle.
- The Degree Program has taken on the initiative of investigating the possible creation of an Advanced Project Management skills class at the 400 course level. This is a work in progress.
- The CAC is working on a Junior Transfer advising map to assist these students in completing their degree within 2.5 years of transferring into the Chico State CMGT program.
- The Major Academic Plan (MAP) for the program is annually reviewed and revised, as necessary, to make curriculum and/or course prerequisites changes to assist students in completing the degree program in 4 to 6 years.

FAR Report Format Change for AY 2020-2021

- The format of this report has been changed to make its review easier for the end-users. The data contained herein continues to meet the ACCE standard 9 ACADEMIC QUALITY PLANNING PROCESS AND OUTCOME ASSESSMENT providing:
 - Assessment Results Summary, and
 - Assessment Improvement Plan
- This new format is organized by Assessment Tool first, followed by the results AND improvement plan.
- EXAMPLE: SLO Direct Assessments
 - EXAMPLE: SLO Direct Assessment **Results**
 - EXAMPLE: SLO Direct Assessment **Improvement Plan** (as required).

Assessment Results – These results focus on the assessment data obtained during AY 2020-2021 by using Scorecards to indicate the SLO and DPO assessment results. The Scorecards also indicate the assessment tool(s) and stated performance criteria. The Assessment Results do not provide any analysis of the data, nor any action plans.

Assessment Improvement Plan - This provides specific action plans for curriculum, assessment methods, assessment tools, or other changes deemed necessary to meet stated performance criteria. The Assessment Improvement Plan should be considered the compliance document, along with any supplement documents and action plans produced as a result of the annual faculty QIP meeting (Appendix J), per the Educational Units Quality Control Plan (“QIP”).

The overall number of Faculty members has stabilized; however, the lecturer/adjunct pool remains in flux. One of the noteworthy changes is that 1 of the 3 remaining Full Professors has entered the FERP program, leaving the Education Unit with only 2 tenured Full Professors for 480 students. This is a situation of concern for the well-being and continuity of the degree program. To maintain parity with other Degree Programs in the College, the Education Unit should maintain the equivalent of 10 full-time equivalent faculty (FTES) to have a student-faculty ratio (SFR) of approximately 24.

The **Curriculum and Accreditation Committee** (“CAC”), comprised of fully-tenured and tenure-track faculty, has facilitated a curriculum-minded culture within the Educational Unit. The CAC meets weekly throughout the academic year to analyze the data assessment results, discuss strategies for continuous improvement, and implement changes to the curriculum, instructional methods, and assessment tools used.

During AY 2020-2021, the CAC along with temporary full-time Faculty and our Industry Advisory Council Curriculum Committee (“IAC CC”), work to accomplish the following tasks:

Assessment Coordinator

- Creation of the Final Assessment Report (FAR) with all data results appendices.

CAC Tasks AY 2021-2022

- Perform an ongoing review analysis of individual SLO curriculum, learning, ladders, identification of student skills desired upon graduation, and revising the SLO definitions.

- Revisit the Educational Unit’s strategic plan and progress towards meeting those goals.
- Review and respond to IAC CC comments on the items listed below.

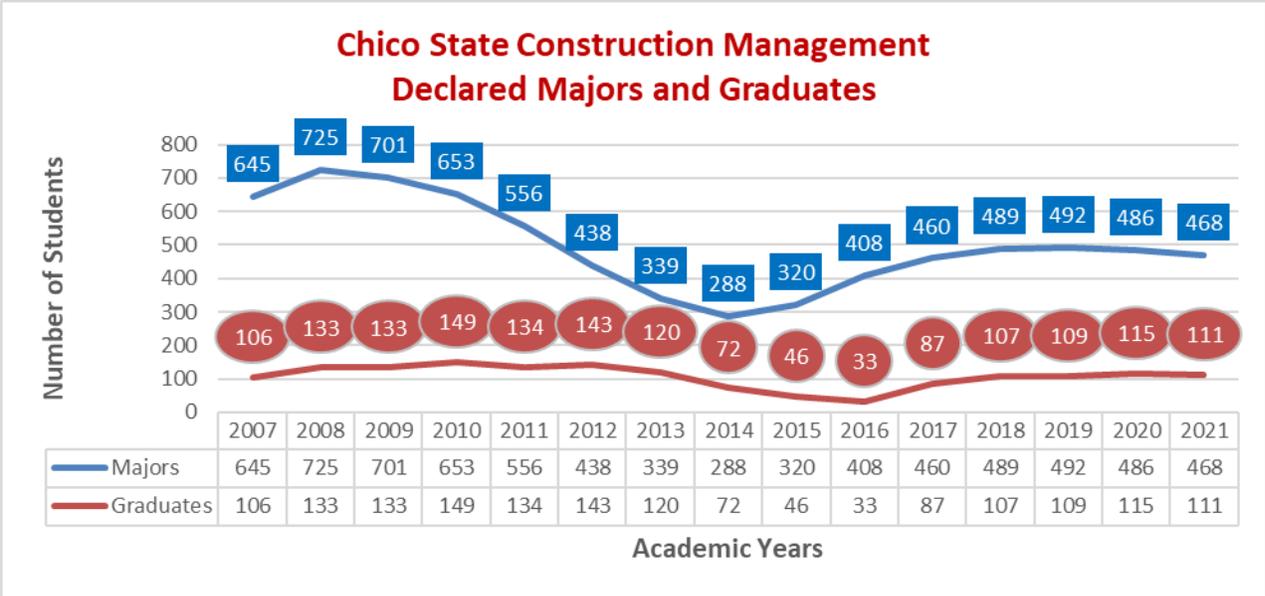
IAC CC Tasks AY 2021-2022

- AY 2020-21 Final Assessment Report (Pending)
 - SLO Assessment Results
 - DPO Assessment Results
 - Senior Exit Survey Results
 - Educational Unit Quality Improvement Plan meeting.
- Existing course curriculum.
- Review of the CAC efforts towards curriculum improvement.

This table represents Full-Time Equivalent Faculty, not the actual number of faculty.

Rank	Status	Load		AY 2017-18	AY 2018-19	AY 2019-20	AY 2020-21	AY 2021-22
Full Professors	Tenure	Full-Time		3	3	3	2	2
Associate Professors	Tenure-Track	Full-Time		1	1	1	1	1
Assistant Professors	Tenure-Track	Full-Time		2	2	2	2	4
Lecturers	Temporary	Full-Time		3	2	2	3	2
Adjunct Faculty	Temporary	Part-Time		3	3	3	1	1
FERP	Retired	Half-Time		<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1</u>	<u>0.5</u>
FTEF				13.5	12.5	12.5	10	10.5

Over the past three years, the Degree Program has seen a slight dip in the number of declared majors. The average number of annual graduates continues to remain over 100 per academic year. Some of this reduction can be partially, if not fully, related to COVID-19. The Educational Unit’s Faculty hiring target remains at adding one full-time Faculty member for every additional 50 declared Degree Program majors.



The Educational Unit uses an embedded assessment process, within the Degree Program, linked to specific assessment tools (quiz, exam, activity, lab, group work) in selected courses to determine student achievement of the various SLOs, [Appendix A](#). The road map for this process is the Introduce-Reinforce-Direct Assessment Map (I-R-DA), [Appendix B](#). The map indicates which of the Degree Program courses are responsible for introducing, reinforcing, and directly assessing the specific SLO content.

As the SLO content is introduced and reinforced, those courses are responsible to perform a direct assessment, collecting the results, analyzing the results, and improving when necessary. However, it is the course(s) assigned by the I-R-DA Map that performs the direct assessment (DA) which is used to measure the students’ depth of knowledge on an individual SLO topical category.

History of Modifications to the Introduce-Reinforce-Direct Map

<u>Edition</u>	<u>Date</u>	<u>Assessment</u>	<u>Purpose</u>
1	F2014	Spring 2015	ACCE re-accreditation visit (under new standards) F2015
2	S2016	AY 2016-2017	The revisions were made for two purposes: 1. Simplification of the previous I-R-DA Map, and 2. Reduction in the number of classes using an embedded assessment of the same SLO.
3	S2017	AY 2017-2018	The revisions were vetted through the Educational Units Curriculum Committee for two purposes: 1. Ensure a logical I-R-DA path of the content is appropriate and sequentially used throughout the Department, and 2. Move direct assessments into 300 and 400-level classes when feasible.
4	F2019	AY 2020-2021	The revision was minor and affected only two courses, CMGT 460 and 462. Due to the cross-over nature of Legal Aspects and Construction Contracts, the taxonomy of the shared SLOs was revised.

This report uses the 4th Edition of the I-R-DA map for all applicable Assessment data.

STUDENT LEARNING OUTCOMES – DIRECT ASSESSMENT

SLO Direct Student Learning Results

For each embedded direct assessment of an SLO, the minimum Educational Unit-wide performance criterion is 85%/73%, defined as 85% of the students taking the assessment will achieve a score of 73% or better.

A complete summary of all direct assessment data from AY2020-2021 is presented in the SLO Direct Assessment Scorecard, [Appendix C](#). This scorecard lists the SLO, the Department's course where the embedded direct assessment occurs, the corresponding Course Learning Outcome ("CLO") description, the assessment tool, the performance criteria, and finally the assessment result.

The Educational Unit conducted SLO direct assessments on all 20 SLOs during the Fall semester. Any SLO direct assessments that did not meet the stated performance criteria were re-assessed during the Spring semester after the appropriate action plan(s) had been implemented.

- There are a total of 24 direct assessments for the 20 SLOs.
- 17 of 24 direct assessments met the stated performance criteria (88% success rate).

SLOs Direct Assessments Needing Improvement:

SLO #4: Create construction project cost estimates.

This SLO uses two courses (CMGT 450 and CMGT 458) and multiple direct assessment tools are used to measure student success. One of the two direct assessment tools used for this SLO failed to meet the stated performance criteria. The course and results:

- CMGT 450 – Lab 1-8 Result: 82%/73%

SLO #8: Analyze methods, materials, and equipment used in construction projects.

This SLO uses one course (CMGT 440) and one direct assessment tool to measure student success. The direct assessment tools used for this SLO failed to meet the stated performance criteria. The course and result:

- CMGT 440 – Bridge Project : 59%/73%

SLO #11: Apply basic surveying techniques for construction layout and control.

This SLO uses one course (CMGT 330) and multiple direct assessment tools to measure student success. Five of the seven direct assessment tools for this SLO failed to meet the stated performance criteria. The course and results:

- CMGT 330 – Lab 10-13, Quiz 7-8, Final Exam average: 62%/73%

SLO #13: Understand construction risk management

This SLO uses one course (CMGT 462) and one direct assessment tool to measure student success. The direct assessment tools used for this SLO failed to meet the stated performance criteria. The course and result:

- CMGT 462 – Midterm Exam Result: 71%/73%

[SLO #17: Understand the legal implications of the contract, common, and regulatory law to manage a construction project.](#)

This SLO uses one course (CMGT 460) and one direct assessment tool to measure student success. The direct assessment tool used for this SLO failed to meet the stated performance criteria. The course and result:

- CMGT 460 – Midterm Exam Result: 52%/73%

[SLO #19: Understand the basic principles of structural behavior.](#)

This SLO uses one course (CMGT 440) and three direct assessments to measure student success. Two of the three direct assessment tools used for this SLO failed to meet the stated performance criteria. The course and results:

- CMGT 440 – Problem Statement #1 Result: 79%/73%
- CMGT 440 – Midterm #1 Result: 66%/73%

Executive Summary of SLO Direct Assessment Data – The trend in compliance with the performance criteria (PC) for direct assessment continues to increase over the past three years.

<u>Academic Year</u>	<u>SLO Fail PC</u>	<u>SLO Pass PC</u>	<u>SLO Pass%</u>
AY 2020-2021	6	14	70%
AY 2020-2021	10	10	50%
AY 2018-2019	8	12	60%
AY 2017-2018	5	15	75%

[SLO Direct Student Learning Improvement Plan](#)

For each embedded SLO direct assessment that did not meet the stated performance criteria shown in [Appendix C](#), an action plan of continuous improvement to achieve the stated performance criteria has been created and is listed below. The plan of action will be based upon one of the following scenarios:

- Continuity:** The specific plan(s) has been developed by the Faculty member continuing to teach this course. This improvement plan(s) and re-assessment will occur in the Spring semester of the current academic year.
- FERP or Lecturer Faculty vs. Continuity:** These courses may be split between FERP, Lecturer, Adjunct, or full-time Faculty. As applicable, each Faculty member creates a specific improvement plan, implements the plan, and assesses that plan in the next semester. Any unmet assessment criteria in the Fall semester will have its action plan engaged the following Spring semester, and re-assessed to determine the progress towards meeting the performance criteria. The same process is followed for Spring semesters when the performance criteria are not achieved with the alternate faculty member.
- Restart:** As of AY 2020-21, a new or different Faculty member is teaching this course and is developing a new curriculum based upon topical content outlines that have been approved by the Curriculum and Accreditation Committee. The CAC continues to support the new Faculty member in the creation of new content, new assessment tool(s), and performing the new direct assessment(s) in Fall 2021.

Individual SLOs Direct Assessment Improvement Plan

SLO #4: Create construction project cost estimates.

- CMGT 450: Scenario A – Continuity
- The following Action Plan applies to Lab #'s 1-8, where the target assessment criteria were not achieved in these individual labs.
- **ACTION PLAN:**

Lab #1 Action Plan

- The three most commonly missed items QTOs were identified when grading the assignment.
- A video tutorial will be generated to show the students how to adequately address these items, which should improve the overall student performance to be within the target criteria of 85% receiving a 73% or better in this Lab.

Lab #3 Action Plan

- The three most commonly missed items QTOs were identified when grading the assignment.
- The instructor will generate additional video tutorials to address these three commonly missed QTO items, as well as other problematic QTOs.

Lab #5 Action Plan

- The three most commonly missed items QTOs were identified when grading the assignment.
- The instructor will generate additional video tutorials to address these three commonly missed QTO items, as well as other problematic QTOs.

Lab #8 Action Plan

- Students missed points for not adequately correcting previous Lab issues, which carried over into this Lab
- Part of the problem is that students may not have clearly understood the grading expectations
- A "Rubric" and/or "Checklist" will be provided with this Lab in the future so students are clear on where they will be docked points for not correcting previous Lab issues

SLO #8: Analyze, methods, materials, and equipment used to construct projects.

- CMGT 440: Scenario A – Continuity
- **ACTION PLAN:**
 - One question needs to be re-written as it confused almost all the students. I will prepare the students better because this assessment came as a surprise.

SLO #11: Apply basic surveying techniques for construction layout and control.

- CMGT 330: Scenario B – FERP / Continuity
- **ACTION PLAN:**

- Reviewing the different assessments, the students understand the field application, however, need reinforcement on the calculations and conceptually visualizing the different surveying styles.
- The biggest struggle was students not wanting to take or participate in online instruction. The breakdown shows that 12 of 44 students did not even attempt Quiz 7. Working on motivating the students to participate even if we are online is something that needs improvement.
- I plan to try and engage the students more, so they want to attend and participate more. If this does not work then I will weigh the grades more heavily in the quiz/exam, so students feel the need to participate.

[SLO #13: Understand construction risk management.](#)

- CMGT 462: Scenario A – Continuity
- **ACTION PLAN:**
 - To meet performance criteria in the future, the instructor will continue to modify course content and exam methodology to meet ACCE taxonomy standards. Specifically, allocate more class time toward the discussion of risk.

[SLO #17: Understand the legal implications of contracts common to a construction project.](#)

- CMGT 460: Scenario A – Continuity
- **ACTION PLAN:** Midterm Exam
 - To meet performance criteria in the future, the instructor will continue to modify course content and exam methodology to meet ACCE taxonomy standards. Specifically, allocate more class time toward the discussion of contracts.

[SLO #19: Understand the basic principles of structural behavior.](#)

- CMGT 440: Scenario A – Continuity
- **ACTION PLAN:** PS #1
- Problem Statement #1, the only change is I will spend an extra ½ lecture on more specifics to load paths. This is a simple concept to understand if explained well.
- Midterm #1, since the understanding increased, I will only emphasize the importance before the assessment, and we will see if we continue to improve.

Executive Summary – Various challenges exist in meeting the stated SLO performance criteria:

- The increase in stated performance criteria to 85%/73% continues to be a challenge to meet although a 70% compliance rate is our highest success rate to date since increasing the performance criteria. The educational unit will continue to assess all SLOs every Fall and work on curriculum and assessment improvements until results are in-line with the stated performance criteria.
- The Educational Unit continues to experience faculty churn (reference the narrative on page 8). The department has multiple new Faculty members, some of them are

becoming instructors for the first time (second careers). These new faculty are in the process of developing teaching proficiencies, teaching styles, and their version of student engagement.

- The impact of COVID on the instructors under the Faculty Early Retirement Program (FERP) cycle was significant. Three of the four FERP faculty chose not to resume teaching under their FERP contract and next year the last FERP faculty will complete their 5-year commitment. This will result in zero remaining FERP faculty and provide an opportunity for future hires once approved by the Provost's Office.
- All faculty are working diligently trying to improve their class to meet the criteria.

STUDENT LEARNING OUTCOMES – INDIRECT ASSESSMENTS

SLO Indirect Student Learning Results

The Department uses three surveys as the means for indirect assessment of the SLOs. They are:

Survey	Frequency
• Senior Exit Survey	Administered annually
• Alumni Survey	Administered every 2 years (Not deployed for AY 2020-2021)
• Employers (IAC)	Administered every 2 years (Not deployed for AY 2020-2021)

For each indirect assessment of an SLO, the minimum Department-wide performance criterion was reduced by faculty as a result of the QIP meeting held in December 2020 from 4.00/5.00 to 3.75/5.00, using the Likert Scale. Additionally, based on the recommendation of our Industry Advisor Council Curriculum Committee, the SLO Indirect Scorecard was modified to provide for “near-miss” performance criteria (-10%) and highlight those results in yellow, instead of red.

A summary of the Senior Exit Survey from AY 2020-2021 and the Alumni Survey and Employers Survey indirect assessment data from AY 2019-2020, is presented in the SLO Indirect Assessment Scorecard, [Appendix D](#). This scorecard incorporates the performance criteria “near-miss” ranking for the Senior Exit Survey and re-ranks the existing results from the Alumni and Employers surveys from summer 2020. Each indirect assessment asks the survey participants to rate the SLOs according to the following instructions:

Senior Exit Survey – “...Rate how strongly you agree or disagree that you have achieved the following SLO outcomes.”

Alumni Survey – “In order to help us understand the level of student preparedness you felt entering the workforce...”

Employers Survey – “In order for our Degree Program to determine the level of our students’ preparedness, please rate the students you supervised based upon the following skill sets (SLOs)”.

SLOs Indirect Assessments Needing Improvement:

The assessment results that are “near misses” (now color-coded in yellow) are to be monitored but are not listed below as needing improvement. As a reminder, all data from the Alumni and Employers Survey data is from AY2019-2020.

[SLO #3: Create a construction project safety plan.](#)

- Alumni Survey Result: 2.98/5.0
- Employer Survey Result: 3.18/5.0

[SLO #4: Create a construction project estimate.](#)

- Employer Survey Result: 2.97/5.0

[SLO #5: Create a construction project schedule.](#)

- Employer Survey Result: 3.18/5.0

[SLO #11: Apply basic surveying techniques for construction layout and control.](#)

- Alumni Survey Results: 2.92/5.0
- Employer Survey Result: 2.82/5.0

[SLO #12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.](#)

- Employer Survey Result: 3.32/5.0

[SLO #13: Understand construction risk management.](#)

- Employer Survey Result: 3.09/5.0

[SLO #14: Understand construction accounting and cost control.](#)

- Employer Survey Result: 3.00/5.0

[SLO #15: Understand construction quality assurance and control.](#)

- Alumni Survey Results: 3.25/5.0
- Employer Survey Result: 3.15/5.0

[SLO #16: Understand construction project control processes.](#)

- Alumni Survey Results: 3.32/5.0
- Employer Survey Result: 3.36/5.0

[SLO #17: Understand the legal implications of contract, common, and regulatory law to manage a construction project.](#)

- Employer Survey Result: 3.09/5.0

[SLO #19: Understand the basic principles of structural behavior.](#)

- Employer Survey Result: 3.36/5.0

[SLO #20: Understand the basic principles of mechanical, electrical, and plumbing systems.](#)

- Employer Survey Result: 3.23/5.0

Executive Summary of SLO Indirect Assessment Data

The Department performed a total of 20 indirect assessments relating to the 20 SLOs.

- Senior Exit Survey Results AY 2020-2021: 20/20 SLOs met the PC.
- Alumni Survey Results AY 2019-2020 (re-ranked): 9/20 SLOs met the PC.
7/20 SLOs nearly missed the PC.
- Employer Survey Results AY 2019-2020 (re-ranked): 3/20 SLOs met the PC.
5/20 SLOs nearly missed the PC.

Despite re-classifying the existing Alumni and Employer Survey data from AY 2019-2020 with the “near miss” category there is still room for improvement. The Alumni and Employer surveys will be refreshed in how these questions are asked to the respondents, before the next deployment in May 2022.

[SLO Indirect Student Learning Improvement Plan](#)

During Fall 2020, it was agreed to reduce the stated performance criteria to 3.75/5.00 on the Likert Scale. Additionally, the reclassification of “near misses” (-10%) of the stated performance criteria was integrated into the ratings. All 3 surveys will be deployed in AY 2021-2022 which will provide a level playing field to re-examine all 3 surveys and will include adjustments to the Alumni and Employer Surveys.

Executive Summary –As the education unit continues to improve curriculum and with the necessary passing of time for students to graduate and build early career success, the Indirect SLO Assessment results shown should improve to reflect these efforts.

[DEGREE PROJECT OBJECTIVES – INDIRECT ASSESSMENT](#)

The purpose of the DPOs is to evaluate the Educational Unit’s performance in achieving its strategic mission and goals for the Degree Program, [**Appendix E**](#). The Educational Unit has established a total of 6 DPOs, with a total of 9 indirect assessment measures. Each DPO has minimum performance criteria as outlined in the DPO Scorecard. For AY 2020-2021 the target performance criteria for DPOs 2 through 4 is 80%, while DPOs 5A, 5B, and 5C are 30%. DPO 6 is new this year. The previous DPO was the University’s Graduation Initiative 2025 and the Educational Unit used the University dashboard to track CMGT’s success. However, all data was removed and is no longer available. As a result, the faculty have changed DPO 6 to the University’s Hispanic-Serving Institutional Goal of 25% for all enrolled students.

Indirect Degree Program Outcome Results

A complete summary of all indirect assessment data from AY2020-2021 is presented in DPO Scorecard, [Appendix F](#). This scorecard lists the DPO, the DPO description, the assessment tool, the performance criteria, and the assessment result.

DPOs Needing Improvement

[DPO #4: A majority of alumni will indicate their approval rating on degree program content and student preparedness level – post-graduation.](#) **NOTE: This data is from the LAST assessment cycle in Spring-Summer 2020 for the AY 2019-2020 FAR.**

- Alumni Survey “Preparedness” 78.4%/80.0%

[DPO #5C: A reasonable number of students will participate in educational enrichment experiences outside of the classroom – Service Learning \(Community Service\).](#)

- Service Learning (Community Service) 13.8%/30.0%

Executive Summary of DPO Indirect Assessment Data

The Department performed indirect assessments for 7 of the 9 components for 5 of the 6 DPOs.

- DPO 4 is based upon feedback from the Alumni survey which is deployed every 2 years. The data in this scorecard is from AY 2019-2020 and will be refreshed in the AY 2021-2022 FAR.
- Five of seven of the new assessments met the stated performance criteria.

[DPO Indirect Improvement Plan](#)

For each of the DPOs that failed to meet the stated performance criteria, a specific action plan has been created.

DPOs Improvement Plan

[DPO #4A – A majority of alumni will indicate their approval rating on degree program content and *student preparedness* level, post-graduation.](#)

- **ACTION PLAN:** This data will be refreshed in Spring-Summer 2022 and be included in the 2021-2022 FAR for analysis and action.

[DPO #5C: A reasonable number of students will participate in educational enrichment experiences outside of the classroom – Service Learning \(Community Service\).](#)

- **ACTION PLAN:** The failure to meet this performance criterion can be solely blamed on the countrywide shutdown resulting from the COVID-19 pandemic. Chico State University was subjected to online (remote) learning for 3.5 semesters. During that time, no Service Learning or Community Service projects could be performed. With in-person classes fully resuming in Spring 2022, the results of this DPO should correct itself over time.

Executive Summary – The only data not reassessed in the cycle was for DPO 4 and will be refreshed in the 2021-2022 FAR. At that time, this DPO can be properly evaluated. The

Educational Unit continues to remain concerned about the longevity success of DPO #5 – Participation in educational enrichment experiences outside of the classroom. While this year's Senior Exit Survey results met the stated performance criteria for student clubs and competitions, it fell short on service learning. The return to in-class instruction should self-correct the results of this DPO. However, it will take the next few years of Senior Exit Surveys results to determine if this assumption is correct. To monitor the participation of lower classmen in student clubs and competitions, a sophomore survey has been created and will be deployed each semester in CMGT 235. This will provide the faculty with real-time data and allow adjustments to be made before these students graduate.

SENIOR EXIT SURVEY – INDIRECT ASSESSMENT

Survey	Frequency
• Senior Exit Survey	Administered annually

Senior Exit Survey Indirect Results

The Senior Exit Survey, [Appendix G](#), provides some key measures for the Educational Unit to document and determine where areas of improvement are warranted. Specific Senior Exit Survey data points: the Students' ratings of Faculty effectiveness, the Students' value of the Degree Program coursework (curriculum content by course), and the Students' perceived strengths and weaknesses of the Educational Unit and Degree Program.

Students' Ratings of Faculty Effectiveness

Ranking (using a scale of 1-5: 1 = Not at all Effective and 5 = Very effective):

The minimum performance criteria is set at 3.5/5.0

- 3 faculty failed to meet the performance criteria, and all 3 faculty no longer teach in the department.

	<u>Rating</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
• Score:	≤ 2	none	none	none	none	none
• Score:	2 ≤ 3	1	2	1	none	none
• Score:	3 ≤ 4	4	6	5	5	4 (2 FERPS)
• Score:	4 - 5	8	10	10	10	11

Students' Value of Department Coursework

Ranking (using a scale of 1-5: 1 = Not Valuable at All and 5 = Highly Valuable):

The minimum performance criteria is set at 3.5/5.0

- 1 class failed to meet the performance criteria, CMGT 110.

	<u>Rating</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
• Score	≤ 2	none	none	none	none	none
• Score:	2 ≤ 3	none	none	none	none	none
• Score:	3 ≤ 4	8	6	12	8	7
• Score:	4 - 5	14	16	10	14	15

Noted Trends – Students’ Perceived Strengths of the Education Unit and Degree Program

- Great Program.
- Qualified and Knowledgeable Faculty.
- Company Recruiting / Connections with Industry.
- Student Advising and Success.

Noted Trends – Students’ Perceived Weaknesses of the Educational Unit and Degree Program

- Too little of a focus on Heavy Civil and MEP.
- Some instructors need to be re-evaluated/improve.
- Less use of PowerPoints in the classroom – DEATH by PowerPoint.
- Online Instruction.

Senior Exit Survey Improvement Plan

Students’ Ratings of Faculty Effectiveness

- An increase in ineffective Faculty teaching has been noted:
 - AY 2016-2017 3/10 Faculty 30%
 - AY 2017-2018 1/13 Faculty 8%
 - AY 2018-2019 2/18 Faculty 11%
 - AY 2019-2020 3/16 Faculty 19%
 - AY 2020-2021 3/15 Faculty 20%

ACTION PLAN:

- 1 of the faculty received a 3.46 and is no longer teaching in CMGT.
- The remaining faculty members scoring below the minimum criteria are now fully retired.

Students’ Value of Department Coursework

- An increase in the students' perceived value in the individual course curriculum has been noted. The increase in stated performance criteria has brought into focus 4 courses for review:
 - AY 2016-2017 2/20 courses 10%
 - AY 2017-2018 0/22 courses 0%
 - AY 2018-2019 0/22 courses 0%
 - AY 2019-2020 4/22 courses 18%
 - AY 2020-2021 1/22 courses 4%

ACTION PLAN:

- 1-courses CMGT 110 this course was taught by FERP faculty and is now being given to a new faculty.

Trends – Students’ Perceived Strengths of the Education Unit and Degree Program

- Great Program.
- Qualified and Knowledgeable Faculty.

- Company Recruiting / Connections with Industry.
- Student Advising and Success.

ACTION PLAN: At this time, the Educational Unit does not believe any action is required.

Trends – Students’ Perceived Weaknesses of the Educational Unit and Degree Program

- Too little of a focus on Heavy Civil and MEP.
- Some instructors need to be re-evaluated/improve.
- Less use of PowerPoints in the classroom – DEATH by PowerPoint.
- Online Instruction.

ACTION PLAN:

- CMGT 235 continues to evolve from a design-related curriculum to a project-based class including basic skills the students would need as MEP coordinators.
- Faculty churn continues, but new faculty are proving to be great additions to the educational unit.
- Faculty with unfavorable instructional scores are no longer a part of the educational unit.
- COVID-19 online instruction has ended.
- CAC will discuss DEATH by PowerPoint, do some fact-finding and determine a course of action.

In response to the ACCE and Educational Unit’s concern over the decreasing trend of participation in the Senior Exit Survey, the Educational Unit has made this survey a mandatory requirement to pass CMGT 455 as of Spring 2021.

ALUMNI SURVEY – INDIRECT ASSESSMENT

Survey	Frequency
• Alumni Survey	Administered every 2 years

Alumni Survey Indirect Results

- **NOTE: The data shown below is NOT new. This data is from the LAST assessment cycle in Spring-Summer 2020 for the AY 2019-20202 FAR.**

The Alumni Survey, **Appendix H**, provides key measures for the Educational Unit to document and determine where areas of improvement are warranted. Specific Alumni Survey data points are: Alumni perceived value towards Department coursework (curriculum content by course), and Alumni perceived strengths and weaknesses of Educational Unit and Degree Program. This survey is done every two years so this data is the same as the last report.

This survey received 65 responses out of 337 alumni contacted (19% success rate).

Alumni Value of Department Coursework

This assessment is administered every two years. (using a scale of 1-5: 1 = Not Valuable at All and 5 = Highly Valuable):

	<u>Rating</u>	<u>2016</u>	<u>2018</u>	<u>2020</u>	<u>2022</u>
• Score	≤ 2	No data	1 class	none	TBD
• Score:	2 ≤ 3	No data	1 class	none	TBD
• Score:	3 ≤ 4	No data	10 classes	5 classes	TBD
• Score:	4 - 5	No data	10 classes	17 classes	TBD

Noted Trends - Alumni Perceived Strengths of the Education Unit and Degree Program

- None

Noted Trends - Alumni Perceived Weaknesses of the Educational Unit and Degree Program

- There should be more of a focus on entry-level PE tasks.
- The curriculum needs to focus more on cutting-edge technology that is being adopted by industry.

Alumni Survey Improvement Plan

- **NOTE: The data shown below is NOT new. This data is from the LAST assessment cycle in Spring-Summer 2020 for the AY 2019-20202 FAR.**

Trends - Alumni Perceived Strengths of the Education Unit and Degree Program

Trends - Alumni Perceived Weaknesses of the Educational Unit and Degree Program

- There should be more of a focus on entry-level PE tasks.
- The curriculum needs to focus more on cutting-edge technology that is being adopted by industry.

ACTION PLAN: These trends will be discussed during this semester's QIP meeting.

EMPLOYER SURVEY – INDIRECT ASSESSMENT

Survey	Frequency
• Employers (IAC) Survey	Administered every 2 years

Employer Survey Indirect Results

- **NOTE: The data shown below is NOT new. This data is from the LAST assessment cycle in Spring-Summer 2020 for the AY 2019-20202 FAR.**

The Employers Survey, **Appendix I**, provides key measures for the Educational Unit to document and determine where areas of improvement are warranted: Specific Employer (IAC) Survey data points: Use of software in the industry per task, Employers value of Degree Program coursework (curriculum content by course), Employers ranking of student preparedness on key industry tasks, and Employers perceived strengths and weaknesses of the Educational Unit and Degree Program. This survey is done every two years so this data is the same as the last report.

This survey received 55 responses out of 76 employers contacted (72% success rate).

Employer use of Industry Software per task (NO CHNAGES SINCE LAST REVIEW)

- Estimating: OST – 25.0% HCSS - 13%, Timberline – 11% WindEst – 7%
Excel – 9% Bluebeam - 5%, Other - 30%
- Scheduling: P6 - 59% MS Project - 30% Other – 11%
- Management: Procore – 45% Vista – 16% Prolog – 10% PlanGrid – 7%
Other – 22%
- Modeling: Navis – 28% Revit – 25% BIM360 – 18% AutoCAD – 8%
Agtek - 8% Other – 13%
- Paperless Flow: Procore – 22% PlanGrid – 16% Vista – 13% Bluebeam – 13%
Prolog – 7% Other – 29%
- Punchlist: PlanGrid – 36% Procore – 31% Bluebeam – 11% Excel – 11%
HCSS – 3% Other - 8%
- Plan MGMT: PlanGrid – 36% Procore – 36% Bluebeam - 17% HCSS – 7%
Vista – 3% Other – 1%

Employer (IAC) Value of Department Coursework

Evaluated every two years, no new data(using a scale of 1-5: 1 = Not Valuable at All and 5 = Highly Valuable):

	<u>Rating</u>	<u>2016</u>	<u>2018</u>	<u>2020</u>
• Score	≤ 2	No data	none	none
• Score:	2 ≤ 3	No data	1 class	none
• Score:	3 ≤ 4	No data	11 classes	5 classes
• Score:	4 - 5	No data	10 classes	13 classes

Employers (IAC) Ranking of Student Preparedness on Key Industry Tasks

Evaluated every two years, no new data (using a scale of 1-5: 1 = Not Prepared at All and 5 = Very Prepared):

	<u>Rating</u>	<u>2018</u>	<u>2020</u>
• Effective Problem Solving		4.11	4.09
• Effective Oral Communicators		4.14	4.21
• Effective work on a Multi-Disciplinary Team		4.34	4.27

Noted Trends - Employers (IAC) Perceived Strengths of the Education Unit and Degree Program

- Well-rounded students with a solid base of construction skills.
- Students have good communication skills.
- Internships create good teamwork skills.

Noted Trends - Employers (IAC) Perceived Weaknesses of the Educational Unit and Degree Program

- Students have poor communication skills.
- The curriculum needs to focus more on cutting-edge technology that is being adopted by industry.

- Focus on other industry sectors, not just vertical and horizontal.
- Students need hands-on experience.

Employer Survey Improvement Plan

- **NOTE:** The data shown below is NOT new. This data is from the LAST assessment cycle in Spring-Summer 2020 for the AY 2019-20202 FAR.

Trends - Employers (IAC) Perceived Strengths of the Education Unit and Degree Program

- Well-rounded students with a solid base of construction skills.
- Students have good communication skills.
- Internships create good teamwork skills.
- **Improvement Plan:** At this time, the Educational Unit does not believe any action is required.

Trends - Employers (IAC) Perceived Weaknesses of the Educational Unit and Degree Program

- Students have poor communication skills.
- The curriculum needs to focus more on cutting-edge technology that is being adopted by industry.
- Focus on other industry sectors, not just vertical and horizontal.
- Students need hands-on experience.

ACTION PLAN:

- Communication Skills – this weakness is in direct opposition to the same strength. This is a mixed message at best. Students were rated very highly by employers as “Effective Oral Communicators 4.21/5.00). The addition of a department-wide writing rubric for all CMGT “W” courses will help to address some of this weakness.
- Focus on industry sections, not just vertical and horizontal - This “trend” will be discussed during this semester’s QIP meeting, however, it was only 2 comments out of 55 surveys.
- Students need hands-on experience – The Educational Unit will continue to offer Service-Learning opportunities that provide a component of “hands-on” labor.

QUALITY IMPROVEMENT PLAN (QIP) Annual Meeting

The Educational Unit held a Quality Improvement Plan meeting in November of 2021 to jointly review, comment, and create necessary action plans for all data collected about AY 2019-2020. The meeting results, action plans, and current status updates are documented in [Appendix J – AY 2020-2021 QIP Meeting and Action Plan](#).

End of Final Assessment Report.

Appendix A

Student Learning Outcomes

Per ACCE Document 103 Standards, Section 3 Curriculum, 3.5 Student Learning Outcomes

- SLO 1 Create written communications appropriate to the construction discipline.
- SLO 2 Create oral presentations appropriate to the construction discipline.
- SLO 3 Create a construction project safety plan.
- SLO 4 Create construction project cost estimates.
- SLO 5 Create construction project schedules.
- SLO 6 Analyze professional decisions based on ethical principles.
- SLO 7 Analyze construction documents for planning and management of construction processes.
- SLO 8 Analyze methods, materials, and equipment used to construct projects.
- SLO 9 Apply construction management skills as an effective member of a multi-disciplinary team.
- SLO 10 Apply electronic-based technology to manage the construction process.
- SLO 11 Apply basic surveying techniques for construction layout and control.
- SLO 12 Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- SLO 13 Understand construction risk management.
- SLO 14 Understand construction accounting and cost control.
- SLO 15 Understand construction quality assurance and control.
- SLO 16 Understand construction project control processes.
- SLO 17 Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- SLO 18 Understand the basic principles of sustainable construction.
- SLO 19 Understand the basic principles of structural behavior.
- SLO 20 Understand the basic principles of mechanical, electrical and plumbing systems.

Appendix C - SLO Direct Assessment Scorecard

Student Learning Outcomes (SLO) - Course Learning Outcomes (CLO)

4/19/2022

AY 2020-2021 Direct Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course		Assessment Performance Criteria			Goal	
			CLO #	Course CLO Description	Tool	Stated *	Fall '20	Spring '21	Met
#1	Create written communications appropriate to the construction discipline.	CMGT 460, Legal Aspects	#1	Be able to prepare a written report/analysis of a construction project and/or dispute, addressing contract preparation, contractor performance, owner breach, and the contractor's damages.	Arbitration Brief Paper	85%/73%	95%/73%	N/A	Yes
#2	Create oral presentations appropriate to the construction discipline.	CMGT 332, Construction Methods Analysis	#1	Have created several oral presentations to demonstrate their knowledge of construction methods analysis.	Presentation #3 (Team #6)	85%/73%	95%/73%	N/A	Yes
#3	Create a construction project safety plan.	CMGT 360, Construction Project Management	#5	Create a project specific safety plan, including site utilization, job hazard analysis, and tool box meetings.	Writing Assignment #2	85%/73%	93%/73%	N/A	Yes
#4	Create construction project cost estimates.	CMGT 450, Construction (Building) Estimating	#7	Create a preliminary estimate consisting of direct costs, indirect costs and margin.	Labs 1-8	85%/73%	79%/73%	82%/73%	No
#4	Create construction project cost estimates.	CMGT 458, Heavy Construction Estimating	#8	Be able to create an Earthwork Cost Estimate.	Labs 1-8	85%/73%	85%/73%	N/A	Yes
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#1	Create a construction project schedule which meets project milestone dates using the critical path method	Lab 3, 4, 5, 6, 7	85%/73%	94%/73%	N/A	Yes
#6	Analyze professional decisions based on ethical principles.	CMGT 450, Construction (Building) Estimating	#6	Analyze various ethical dilemmas and potential options to reach an ethical decision as it applies to construction estimating.	Activity 7	85%/73%	90%/73%	N/A	Yes

Student Learning Outcomes (SLO) - Course Learning Outcomes (CLO)
AY 2020-2021 Direct Assessment Results Scorecard

4/19/2022

SLO	ACCE SLO Description	Course		Assessment Performance Criteria				Goal	
		Course Number and Name	CLO #	Course CLO Description	Tool	Stated *	Fall '20	Spring '21	Met
#6	Analyze professional decisions based on ethical principles.	CMGT 462, Construction Contracts	#1	Analyze ethical situations and defend a decision or action based on that evaluation	Exam 1	85%/73%	92%/73%	N/A	Yes
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#2	Separate, diagram, and sequence unique scopes of work which are detailed in a project's construction documents	Lab 1 & 2	85%/73%	90%/73%	N/A	Yes
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 440, Temporary Structures	#2	Analyze materials and equipment used to construct and remove temporary structures on projects	Bridge Project	85%/73%	59%/73%	59%/73%	No
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	CMGT 332, Construction Methods Analysis	#2	Have participated on a multi-disciplinary team to apply construction method analysis principles and concepts to a construction project.	Assignment #13 (Teams Performance)	85%/73%	86%/73%	N/A	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 457, Project Control and Scheduling	#3	Use software to track construction progress, forecast when future activities need to occur, and create documents commonly used in construction management	Lab 8	85%/73%	87%/73%	N/A	Yes
#11	Apply basic surveying techniques for construction layout and control.	CMGT 330, Principles of Soil Mechanics and Foundations	#3	Have applied basic surveying techniques for construction layout and control	Lab #10-13, Quiz 7&8, Final Exam	85%/73%	44%/73%	76%/73%	No

Student Learning Outcomes (SLO) - Course Learning Outcomes (CLO)
AY 2020-2021 Direct Assessment Results Scorecard

4/19/2022

SLO	ACCE SLO Description	Course Number and Name	Course	Course CLO Description	Tool	Assessment Performance Criteria			Goal
			CLO #			Stated *	Fall '20	Spring '21	Met
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	CMGT 360, Construction Project Management	#2	Be familiar with contract pricing methods to include Negotiated, Sole Source, Lump Sum, Unit Price, Cost Plus, Guarantee Maximum Price, and have an understanding of contract procurement management for all delivery systems.	Exam #1, Part 2	85%/73%	94%/73%	N/A	Yes
#13	Understand construction risk management.	CMGT 462, Construction Contracts	#2	Recognize contract-specific risks in the construction industry, and identify strategies to mitigate those risks	Mid Term Exam	85%/73%	78%/73%	71%/73%	No
#14	Understand construction accounting and cost control.	CMGT 455, Construction Cost Management	#4	Understand simple construction accounting operations and the basic elements of cost control.	Activity 2	85%/73%	88%/73%	N/A	Yes
#15	Understand construction quality assurance and control.	CMGT 455, Construction Cost Management	#6	Understand how Quality Assurance and Quality Control are linked to the overall health of a construction project and how they are different. Reinforce the relationship between good quality and project performance.	QA/QC/TQM Written Assignment	85%/73%	88%/73%	N/A	Yes
#16	Understand construction project control processes.	CMGT 455, Construction Cost Management	#2	Incorporate cost control elements into functioning control systems, illustrating their benefit to the successful management of construction projects.	Activity 4	85%/73%	88%/73%	N/A	Yes

Student Learning Outcomes (SLO) - Course Learning Outcomes (CLO)
AY 2020-2021 Direct Assessment Results Scorecard

4/19/2022

SLO	ACCE SLO Description	Course		Assessment Performance Criteria			Goal		
		Course Number and Name	CLO #	Course CLO Description	Tool	Stated *	Fall '20	Spring '21	Met
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT 460, Legal Aspects	#3	Identify laws specific to the construction industry, and demonstrate an understanding of the applications of those laws to a construction project.	Midterm Exam	85%/73%	23%/73%	52%/73%	No
#18	Understand the basic principles of sustainable construction.	CMGT 385, Concepts of Sustainable Construction	#3	Analyze sustainable construction practices, specifically as they relate to design decisions and construction practices	Mid Term Exam #2	85%/73%	88%/73%	N/A	Yes
#19	Understand the basic principles of structural behavior.	CMGT 440, Temporary Structures	#1	Understand Load Paths	PS#1	85%/73%	79%/73%	79%/73%	No
#19	Understand the basic principles of structural behavior.	CMGT 440, Temporary Structures	#3	Understand beam and column/strut design and how they relate to all temporary structure designs	Mid Term #1	85%/73%	66%/73%	66%/73%	No
#19	Understand the basic principles of structural behavior.	CMGT 440, Temporary Structures	#4	Understand the different types of systems used in temporary structures	Mid Term #2	85%/73%	90%/73%	N/A	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 385, Concepts of Sustainable Construction	#6	Understand the importance of mechanical, electrical and plumbing systems in green building	Mid Term Exam	85%/73%	91%/73%	N/A	Yes
<p>* The first percentage represents the percentage of students scoring above the minimum score. The second percentage represents the minimum score. Therefore, the stated performance criteria is defined that X% of students shall score X%, or greater, on a given assessment.</p>									

Student Learning Outcomes (SLO)**AY 2020-2021 Indirect Assessment Results Scorecard**

SLO	ACCE SLO Description	Stated *	Senior Survey		Alumni Survey		Employer Survey		Total Average Score	Overall Goal Met
		Performance Criteria	Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met		
#1	Create written communications appropriate to the construction discipline.	3.75/5.0	4.38	Yes	3.74	Near Miss	3.62	Near Miss	3.91	Yes
#2	Create oral presentations appropriate to the construction discipline.	3.75/5.0	4.38	Yes	3.78	Yes	3.74	Near Miss	3.97	Yes
#3	Create a construction project safety plan.	3.75/5.0	4.27	Yes	2.98	No	3.18	No	3.48	No
#4	Create construction project cost estimates.	3.75/5.0	4.53	Yes	3.59	Near Miss	2.97	No	3.70	Near Miss
#5	Create construction project schedules.	3.75/5.0	4.40	Yes	3.85	Yes	3.18	No	3.81	Yes
#6	Analyze professional decisions based on ethical principles.	3.75/5.0	4.47	Yes	3.98	Yes	3.82	Yes	4.09	Yes
#7	Analyze construction documents for planning and management of construction processes.	3.75/5.0	4.53	Yes	3.81	Yes	3.68	Near Miss	4.01	Yes
#8	Analyze methods, materials, and equipment used to construct projects.	3.75/5.0	4.27	Yes	3.68	Near Miss	3.55	Near Miss	3.83	Yes
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	3.75/5.0	4.38	Yes	3.91	Yes	4.03	Yes	4.11	Yes
#10	Apply electronic-based technology to manage the construction process.	3.75/5.0	4.42	Yes	3.91	Yes	4.03	Yes	4.12	Yes
#11	Apply basic surveying techniques for construction layout and control.	3.75/5.0	3.80	Yes	2.92	No	2.82	No	3.18	No

Student Learning Outcomes (SLO)
AY 2020-2021 Indirect Assessment Results Scorecard

4/28/2022

SLO	ACCE SLO Description	Stated *	Senior Survey	Alumni Survey	Employer Survey	Total	Overall			
		Performance Criteria	Average Score	Goal Met	Average Score	Goal Met	Average Score	Goal Met		
#12	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	3.75/5.0	4.55	Yes	3.79	Yes	3.32	No	3.89	Yes
#13	Understand construction risk management.	3.75/5.0	4.35	Yes	3.53	Near Miss	3.09	No	3.66	Near Miss
#14	Understand construction accounting and cost control.	3.75/5.0	4.42	Yes	3.47	Near Miss	3.00	No	3.63	Near Miss
#15	Understand construction quality assurance and control.	3.75/5.0	4.31	Yes	3.25	No	3.15	No	3.57	Near Miss
#16	Understand construction project control processes.	3.75/5.0	4.36	Yes	3.32	No	3.36	No	3.68	Near Miss
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	3.75/5.0	4.44	Yes	3.98	Yes	3.09	No	3.84	Yes
#18	Understand the basic principles of sustainable construction.	3.75/5.0	4.20	Yes	3.74	Near Miss	3.47	Near Miss	3.80	Near Miss
#19	Understand the basic principles of structural behavior.	3.75/5.0	4.25	Yes	4.04	Yes	3.36	No	3.88	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	3.75/5.0	4.25	Yes	3.55	Near Miss	3.23	No	3.68	Near Miss

* The first number represents the minimum stated performance criteria.

The second number represents the maximum allowable score.

Represent assessment measures that are within 10% of the targeted performance criteria and are considered "near misses".

Degree Program Objectives**AY 2020-2021**

DPO #	DPO Description	Assessment Tool	Performance Criteria
1	ACCE accreditation shall be maintained.	Visiting Team Report	Yes / No
2	A majority of graduating seniors will receive employment offers from one or more construction companies.	ECC - Senior Survey	>=80%
3	A majority of graduating seniors will indicate that their expectations regarding curricular rigor were met or exceeded	CMGT - Senior Survey	>=80%
4	A majority of alumni will indicate their approval rating on degree program content and student preparedness level, post-graduation (3-5 years).		
	Preparedness	Alumni Survey	>=80%
	Degree program content - curriculum relevance	Alumni Survey	>=80%
5	A reasonable number of students will participate in educational enrichment experiences outside of the classroom.		
5A	Student Clubs of Professional Organizations	CMGT - Senior Survey	>=30%
5B	Student Competitions	CMGT - Senior Survey	>=30%
5C	Service Learning	CMGT - Senior Survey	>=30%
6	The Educational Unit shall work towards compliance with the Univeristy's stated goal of becoming a recognized "Hispanic-Serving Institution"	CMGT Enrollment Records	>=25%

Appendix F- DPO Indirect Assessment Scorecard

4/25/2022

Degree Program Objectives
Assessment Results Scorecard - AY 2020-2021

DPO #	DPO Description	Assessment Tool	Performance Criteria	Performance Result	Comments
1	ACCE accreditation shall be maintained.	Visiting Team Report	Yes / No	Yes	
2	A majority of graduating seniors will receive employment offers from one or more construction companies.	ECC - Senior Survey	>=80%	85.5%	
3	A majority of graduating seniors will indicate that their expectations regarding curricular rigor were met or exceeded	CMGT - Senior Survey	>=80%	98.5%	19.1% met, 39.7% quite, 39.7% very prepared.
4	A majority of alumni will indicate their approval rating on degree program content and student preparedness level, post-graduation (3-5 years).				
	Preparedness	Alumni Survey	>=80%	74.5%	Summer 2020 data set - FAR 2019-2020
	Degree program content - curriculum relevance	Alumni Survey	>=80%	82.4%	Summer 2020 data set - FAR 2019-2020
5	A reasonable number of students will participate in educational enrichment experiences outside of the classroom.				
5A	Student Clubs of Professional Organizations	CMGT - Senior Survey	>=30%	65.2%	
5B	Student Competitions	CMGT - Senior Survey	>=30%	33.3%	
5C	Service Learning	CMGT - Senior Survey	>=30%	13.8%	COVID Shutdown
6	The Educational Unit shall work towards compliance with the Univeristy's stated goal of becoming a recognized "Hispanic-Serving Institution"	CMGT Enrollment Records	>=25%	29.6%	119/402 Declared Majors

Appendix G- Senior Exit Survey Results

ECC Graduating Senior Exit Survey

Results AY 2019-2020

Educational Satisfaction - 69 Respondent's		
1	At Chico State, how satisfied were you with the . . .	Average Score 1-5 Scale
1a	Quality of teaching by faculty in your department	4.51
1b	Quality of teaching by other faculty	4.00
1c	Access to faculty in your department	4.65
1d	Availability of courses in your department	4.46
1e	Quality of courses in your department	4.39
1f	Access to lab facilities and equipment	4.39
1g	Quality of laboratories and equipment	4.20
1h	Access to computer facilities	4.46
1i	Quality of computer facilities	4.04
1j	Academic advising from your major advisor	4.26
1k	Academic advising from the Advising Office	4.14
1l	Career information from your department	4.87
1m	Availability of GE courses	4.09
1n	Quality of GE courses	3.74
1o	Overall quality of your education	4.38
1p	Your overall experience at Chico State	4.51

21	How many job offers have you received? - 69 Respondent's	None	One	Two	Three	Four +	
		10	25	23	4	7	
		14.5%	36.2%	33.3%	5.8%	10.1%	

22	Do you currently have a job offer that you are likely to accept?	Yes	No				
		73.9%	26.1%				
25	What will be your starting annual salary? - 48 Respondents	< \$50,000	\$50-60,000	\$61-70,000	\$71-80,000	\$81-90,000	>\$91,000
		2	2	8	23	8	5
		4.2%	4.2%	16.7%	47.9%	16.7%	10.4%

78	How many companies have you interned with? - 69 Respondents	None	One	Two	Three	Four/more	
		0	38	22	4	5	
		0.0%	55.1%	31.9%	5.8%	7.2%	

79	If you have accepted a job, what sector of the Construction Industry will you be working in?	Commercial Building	Industrial	Heavy Civil	Mixed Use / Residential	Specialty (Sub-contractor)	Other
		40	0	13	1	5	10
		58.0%	0.0%	18.8%	1.4%	7.2%	14.5%

81	Where you involved in student activities or clubs? - 69 Respondents	Yes	No				
		45	24				
		65.2%	34.8%				
	If yes, what activities or clubs were you involved in?	AGC	DBIA	MCAA	Sigma Lambda Chi	CSWIC	Other
	multiple responses allowed - 84 Responses	25	11	4	3	6	11
		41.7%	18.3%	6.7%	5.0%	10.0%	18.3%

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83	Did you compete, or volunteer, at the ASC Competition in Sparks, NV? - 69 Respondents	Yes	No				
		23	46				
		33.3%	66.7%				
	If yes, what team(s) did you compete on? - 23 Respondents	Volunteer	Commercial Building	Mixed use	Heavy Civil	Mechanical	Concrete Solutions
		0	6	3	2	1	4
		0.0%	26.1%	13.0%	8.7%	4.3%	17.4%
			Design Build	Electrical	Other		
			4	3	0		
			17.4%	13.0%	0.0%		

85	Did you participate in any community service projects sponsored by the Department of Construction Management - 69 Respondents	Yes	No				
		13	56				
		18.8%	81.2%				
	If yes, what project(s) did you work on?	Caper Acres	Covered Bridge	ASCDL	Camelot Equestrian	Other	
	multiple responses allowed - 74 Responses	3	6	2	2	3	
		18.8%	37.5%	12.5%	12.5%	18.8%	

87	How well do you believe that your degree in Construction Management has prepared you for your career in the industry? (note: same question is asked in the Alumni Survey) - 68 Respondents	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very much prepared (5)	Average Score 1-5 Scale
		0	2	8	25	33	4.31
		0.0%	2.9%	11.8%	36.8%	48.5%	

88	Regarding your majors academic curriculum rigor, how were your expectations met? - 68 Respondents	Not met (1)	A little met (2)	Somewhat met (3)	Quite a bit met (4)	Met (5)	Average Score 1-5 Scale
		0	1	13	27	27	4.18
		0.0%	1.5%	19.1%	39.7%	39.7%	

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89	Below are the names of the Department faculty; please rate the overall effectiveness of each person you have had for one or more courses	Not effective at All (1)	Seldom Effective (2)	Somewhat Effective (3)	Usually Effective (4)	Very Effective (5)	Average Score 1-5 Scale
89.1	Alan Bond - 67 Respondents	0 0.0%	0 0.0%	0 0.0%	8 11.9%	59 88.1%	4.88
89.2	Patrick Brittle - 68 Respondents	0 0.0%	0 0.0%	4 1.9%	14 28.8%	50 69.2%	4.68
89.3	Mike Borzage - 26 Respondents	0 0.0%	7 26.9%	6 23.1%	7 26.9%	6 23.1%	3.46
89.4	Lori Brown - 65 Respondents	2 2.3%	12 7.0%	14 18.6%	23 25.6%	14 46.5%	3.54
89.5	Brendan Coakley - 43 Respondents	0 0.0%	4 9.3%	4 9.3%	17 39.5%	18 41.9%	4.14
89.6	Denny Gier - 27 Respondents	1 3.7%	2 7.4%	4 14.8%	9 33.3%	11 40.7%	4.00
89.7	Rich Holman - 68 Respondents	0 0.0%	0 0.0%	3 4.4%	14 20.6%	51 75.0%	4.71
89.8	Williem Kymmell - 51 Respondents	5 9.8%	6 11.8%	16 31.4%	16 31.4%	8 15.7%	3.31
89.9	John Schwarz - 32 Respondents	0 0.0%	0 0.0%	1 3.1%	9 28.1%	22 68.8%	4.66
90.10	Chris Souder - 66 Respondents	3 4.5%	4 6.1%	10 15.2%	31 47.0%	18 27.3%	3.86
90.11	Marie Patterson - 62 Respondents	1 1.6%	3 4.8%	9 14.5%	22 35.5%	27 43.5%	4.15
90.12	Tyler Spangler - 63 Respondents	4 6.3%	6 9.5%	26 41.3%	11 17.5%	16 25.4%	3.46
90.13	Brian Old - 68 Respondents	0 0.0%	1 1.5%	3 4.4%	22 32.4%	42 61.8%	4.54
90.14	Jamie Cochran - 67 Respondents	0 0.0%	0 0.0%	2 3.0%	16 23.9%	49 73.1%	4.70
90.15	Joseph Schwartz - 55 Respondents	0 0.0%	0 0.0%	2 3.6%	17 30.9%	36 65.5%	4.62

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90	Below are Construction Management specific subject areas that you took while enrolled in the CMGT program. Please rate the value of each course as it relates to the value of your educational experience	Not Valuable At All (1)	Seldom Valuable (2)	Somewhat Valuable (3)	Valuable (4)	Highly Valuable (5)	Average Score 1-5 Scale
90a	CMGT 100 - Concepts of Construction - 63 Respondents	2 3.2%	1 1.6%	9 14.3%	19 30.2%	32 50.8%	4.24
90b	CMGT 101 - Construction Career Prep (discontinued) - 27 Respondents	0 0.0%	2 7.4%	4 14.8%	11 40.7%	10 37.0%	4.07
90c	CMGT 110 - Construction Graphics - 61 Respondents	4 6.6%	9 14.8%	14 23.0%	21 34.4%	13 21.3%	3.49
90d	CMGT 135 - Construction Materials and Systems - 66 Respondents	0 0.0%	2 3.0%	17 25.8%	24 36.4%	23 34.8%	4.03
90e	CMGT 210 - Analysis of Construction Drawings and Specifications - 68 Respondents	0 0.0%	0 0.0%	1 1.5%	12 17.6%	55 80.9%	4.79
90f	CMGT 235 - Electrical and Mechanical Systems - 67 Respondents	0 0.0%	0 0.0%	13 19.4%	26 38.8%	28 41.8%	4.22
90g	CMGT 270 - Building Information Modeling (discontinued) - 13 Respondents	1 7.7%	0 0.0%	2 15.4%	2 15.4%	8 61.5%	4.23
90h	CMGT 275 - Architectural History (discontinued) - 15 Respondents	1 6.7%	2 13.3%	4 26.7%	2 13.3%	6 40.0%	3.67
90i	CMGT 330 - Principles of Soil Mechanics and Foundations - 66 Respondents	2 3.0%	5 7.6%	17 25.8%	28 42.4%	14 21.2%	3.71
90j	CMGT 332 - Construction Methods Analysis - 66 Respondents	2 3.0%	3 4.5%	14 20.9%	19 28.4%	29 43.3%	4.04
90k	CMGT 335 - Construction Equipment - 68 Respondents	0 0.0%	1 1.5%	4 5.9%	31 45.6%	32 47.1%	4.38
90l	CMGT 340 - Principles of Statics (discontinued) - 62 Respondents	2 3.2%	7 11.3%	21 33.9%	20 32.3%	12 19.4%	3.53
90m	CMGT 345 - Mechanics of Materials (discontinued) - 54 Respondents	0 0.0%	3 5.6%	15 27.8%	22 40.7%	14 25.9%	3.87
90n	CMGT 360 - Construction Project Management - 68 Respondents	0 0.0%	0 0.0%	5 7.4%	27 39.7%	36 52.9%	4.46
90o	CMGT 380 - Green Building Practices and LEED Certification (discontinued) - 28 Respondents	1 3.6%	0 0.0%	6 21.4%	13 46.4%	8 28.6%	3.96
90p	CMGT 440 - Temporary Structures - 66 Respondents	4 6.1%	6 9.1%	14 21.2%	27 40.9%	15 22.7%	3.65
90q	CMGT 450 - Building Estimating - 67 Respondents	0 0.0%	0 0.0%	0 2.0%	13 21.6%	54 76.5%	4.81
90r	CMGT 455 - Construction Cost Management - 68 Respondents	0 0.0%	1 0.0%	4 0.0%	17 0.0%	46 0.0%	4.59
90s	CMGT 457 - Project Control and Scheduling - 67 Respondents	0 0.0%	0 0.0%	3 4.5%	16 23.9%	48 71.6%	4.67
90t	CMGT 458 - Heavy Construction Estimating - 65 Respondents	1 1.5%	0 0.0%	5 7.7%	24 36.9%	35 53.8%	4.42
90u	CMGT 460 - Legal Aspects of Construction - 68 Respondents	1 1.5%	0 0.0%	3 4.4%	32 47.1%	32 47.1%	4.38
90v	CMGT 462 - Construction Contracts - 65 Respondents	0 0.0%	0 0.0%	5 7.7%	23 35.4%	37 56.9%	4.49

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91	Our accreditation agency, The American Council for Construction Education, has established Student Learning Outcomes (SLO) that set out what skills and knowledge you should have attained upon graduation. Rate how strongly you agree or disagree that you have achieved the following outcomes - 68 Respondents	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Average Score 1-5 Scale
91a	1. Create written communications appropriate to the construction discipline.	0 0.0%	0 0.0%	2 2.9%	36 52.9%	30 44.1%	4.41
91b	2. Create oral presentations appropriate to the construction discipline.	0 0.0%	0 0.0%	3 4.4%	34 50.0%	31 45.6%	4.41
91c	3. Create a construction project safety plan.	0 0.0%	0 0.0%	8 11.8%	29 42.6%	31 45.6%	4.34
91d	4. Create construction project cost estimates.	0 0.0%	0 0.0%	3 4.4%	24 35.3%	41 60.3%	4.56
91e	5. Create construction project schedules.	0 0.0%	0 0.0%	4 5.9%	30 44.1%	34 50.0%	4.44
91f	6. Analyze professional decisions based on ethical principles.	0 0.0%	0 0.0%	3 4.4%	28 41.2%	37 54.4%	4.50
91g	7. Analyze construction documents for planning management of construction processes.	0 0.0%	0 0.0%	2 2.9%	27 39.7%	39 57.4%	4.54
91h	8. Analyze methods, materials, and equipment used to construct projects.	0 0.0%	2 2.9%	6 8.8%	28 41.2%	32 47.1%	4.32
91i	9. Apply construction management skills as a member of a multidisciplinary team.	1 1.7%	0 0.0%	2 3.4%	31 53.4%	24 41.4%	4.33
91j	10. Apply electronic based technology to manage the construction process.	0 0.0%	1 1.5%	5 7.4%	28 41.2%	34 50.0%	4.40
91k	11. Apply basic surveying techniques for construction layout and control.	2 2.9%	2 2.9%	16 23.5%	28 41.2%	20 29.4%	3.91
91l	12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	0 0.0%	0 0.0%	1 1.5%	28 41.2%	39 57.4%	4.56
91m	13. Understand construction risk management.	1 1.5%	1 1.5%	1 1.5%	31 45.6%	34 50.0%	4.41
91n	14. Understand construction accounting and cost control.	0 0.0%	2 2.9%	1 1.5%	29 42.6%	36 52.9%	4.46
91o	15. Understand construction quality assurance and control.	1 1.5%	1 1.5%	2 2.9%	32 47.1%	32 47.1%	4.37
91p	16. Understand construction project control processes.	0 0.0%	2 2.9%	2 2.9%	30 44.1%	34 50.0%	4.41
91q	17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	0 0.0%	0 0.0%	3 4.4%	33 48.5%	32 47.1%	4.43
91r	18. Understand the basic principles of sustainable construction.	0 0.0%	0 0.0%	10 10.0%	32 32.0%	26 26.0%	4.24
91s	19. Understand the basic principles of structural behavior.	1 1.5%	0 0.0%	5 7.4%	35 51.5%	27 39.7%	4.28
91t	20. Understand the basic principles of mechanical, electrical and piping systems.	0 0.0%	3 4.4%	4 5.9%	32 47.1%	29 42.6%	4.28

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92	Please list the strengths of the Construction Management Program
	Great networking with recruiting companies, and a great program for getting into the right mindset for the industry.
	A lot of good professors
	Lots of info
	Job opportunities
	Strong recruitment/internship program, great exposure when joining clubs/ASC, some instructors are very interested in student development
	Great staff and good class content that was for the most part well worth the time and money to be in class.
	Faculty is definitely strong. I think there's healthy focuses on a number of the topics listed above and I feel relatively prepared for my career in industry.
	All faculty is well educated and very friendly
	everything
	Pre-session and internship opportunities is the biggest strength of the CMGT program.
	Younger faculty.
	The networking with companies may be the best thing the CM program does.
	connections go a long way. Mostly all the advisors are very easy to talk to
	Everyone is willing to help each other to succeed and work in the construction industry.
	Great staff, classes that prepare your career, comradery between students
	The Civil and Commercial sides of Construction. Plan and Spec Reading, Estimating, actual lab work, such as soils, Clash Detection, preparing presentations regarding a project, face to face interaction with companies.
	Well educated faculty made classes engaging and interesting to to learn from and the made reaching out to the industry about work very accessible (info sessions).
	Faculty understands what material will be valuable for us to know and use in the industry and it feels courses are structured around that experience.
	Faculty knowledge and availability. Also, provide us with many industry connections to help us get internships and fulltime jobs.
	The hands on experience with construction software. Teaching in CM department is on average much better than any other teaching received at Chico State.
	Lots of exposure to companies. Given every opportunity possible to get a job right out of college.
	I believe the CM department has a strong core of teachers that excel at teaching and making students want to succeed in the industry.
	very good at giving students information regarding internship or scholarship opportunities.
	Project management and development & estimating
	Really good teachers that share first hand experience with the class
	- being able to learn from the industry and real-life experience
	- Most work is related to the stuff that we will potentially do in the future
	- Crash course on how to handle most program (Excel, P6, Estimating software, etc)
	Communications
	The availability from the professors and how closely the students all work together.
	Its nice to have female professors and see the changes that are occurring within the department. The chance to meet with the professionals within the field and gain those interview skills.
	Advisors are always available when students need help,
	Advisers are always available
	The strengths of teaching in the program are, analyzing project documents courses, heavy estimating courses, project scheduling courses, and building estimating courses.
	The strengths of the Construction Management program are that the faculty is very approachable and easy to talk to about any aspect of the class/industry. The classes feel as though they have been well thought out to present the best possible explanation without actually being in the field/office. The program also seems to care about how the students do in the class as well as what their future is going to look like. They provide many opportunities to succeed, which makes everyone apart of the program, whether it is faculty or students want to be the best they can be. The program allows for the student to be able to have a discussion with their peers as well as work on many of the basic aspects to the industry.
	Good professors
	Learning how to read plans and specs was the biggest strength. Also learning all of the different software has been super valuable.
	Analyzing materials and equipment used
	Applying technology programs such as bluebeam, RS means, P6, OST, MS Office
	Accounting costs
	applicability in real life
	Simplifying subjects to make them easy to understand.
	Connecting subjects to the real world
	Faculty connecting to students
	Resources for classes and job opportunities
	The CM department gears students into the Commercial GC type sector and i really liked that.
	Career Development
	I enjoy that many of these classes are related and build over of each other relatively fluid. Another strength is how much the faculty cares about the students. It does not go unnoticed and is talked about among students.
	Instructors genuinely care for students
	The professors, and the pre-sessions.

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	The best part of the program in my opinion is giving students so much opportunity for Jobs and internships. I learned the basics at school which gave me the skills to function as part of the companies I worked for and this is where I learned the most, actually doing the types of jobs I will have when I graduate.
	Faculty Engaging with Students one on one. Great mentoring and coaching. Prepares you for Industry. Changed my life by providing me with a career. Alan Bond is the Man and deserves credit. All professors have the students succeeding as their most important goal. Choosing CHICO CM was one of my best decisions, thank god I didn't go to Cal Poly.
	The faculty is always there to help.
	Strong Teaching background
	Material and concepts explained simply and concisely.
	Knowing what is needed is very clear.
	Many different avenues to success.
	the teaching staff is wonderful and very available
	All the CM staff has lots of real life experiences in the industry. They also really focus on the most important aspects they know we'll face coming out of school on our way to work in the field. Staff is also still well connected with industry and can guide you to the right career position.
	Access and exposure to industry standard programs.
	Project Delivery Methods, Contracts, Teamwork, Law, Estimating, Drawing/Spec reading, Heavy Construction Estimating, Production rates.
	Preparing students for the real world
	Extremely well supported and connected department. We experience an extremely high amount of influence from the industry and it could not be more
	The faculty, Company Recruitment, Some classes are very helpful
	Knowledgable and Approachable professors
	The new faculty and change in direction from the department chair.
	Lots of resources
	very helpful on getting a job after graduation.
	Faculty with industry experience; scheduling and cost management; analysis of drawings and specifications
	CM program is very well rounded. The professor and student collaborate to help one another learn new things about CM.
	Learned the basics of construction
	The faculty are extremely experienced and teach well.
	Professors
	Teachers working together to make sure students are prepared for their next level of classes
	The professors really know what they are talking about. The atmosphere is very supportive and relaxed. Lots of resources dedicated to us like the computer lab. CM front desk women are just delightful, always helped whenever I've been in a pinch.
	Stories of experiences from the field Highly experienced professors
	Real world application of classroom material
	Diverse classes
	She just has to collaborate with others as well as think for ourselves
	Info sessions are key to job offers and CSU Chico program excels at that.

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93	Please list any areas needing improvement in the Construction Management Program.
	The engineering courses are pretty useless for what we are going into the industry for (Temp Structures, Statics, Mechanics). It's important to understand it, but to have us do the rigid specifics of it is meant for actual engineers.
	Some staff could be better and some classes improved
	Not all instructors show the same interest in development of students. More emphasis need to be places on clubs and ASC competition early on. Would have like to have seen better instruction of specialty (subcontractor) work.
	I think there is a failure to focus on any careers outside General Contractors. It seems like there should be advocacy for heavy civil and specialty work in a more balanced way. Also, I think all teachers need to be held to the same level of accountability.
	More serious advising
	statics, not needed
	There are too many hard upper division classes that we need to take (2 Accountings, 2 Physics, Chemistry).
	There is a lot of repetition of material throughout the program.
	I think we need a variable of field being taught. commercials construction was the main subject and very little heavy civil.
	I think we need to find a way to offer tutor service for those CM classes in a way that a student assistant holds a classroom such as "x-classes".
	The more technical areas, such as MEP scopes of work along with scheduling, less powerpoints in the 100 level classes.
	More curriculum on the Specialty side of construction.
	A class where you get a better understanding of going through the submittal processes. Making logs, finding mistakes (leading to a resubmit). Would be beneficial for internships.
	It would be nice to be taught more means and methods of how buildings are built and how everything goes together.
	I think the CM program could improve by incorporating more excel classes from the start of the program. I believe the new course calendar includes this but excel is a software that needs to be taught every year so by the time we graduate we are more then proficient.
	Contract document interpretation
	empathy
	The thing I missed was in person instruction and having an internship, all due to covid.
	Teaching via the method of PowerPoint. The use of PowerPoint is overdone and exhausting. Professors need to teach by using examples of experiences they had in the field. Digustishing private vs public works construction is needed. This program focuses heavily on private construction. In the public sector, public works use different project documentation. There needs to be added instruction of project documentation, takeoff, estimating, and scheduling of public
	The only area that I feel would make the program even smoother would be if all the classes adopted a similar schedule structure, just to make tracking classes easier.
	Online class feels like a waste of time and money
	I think if more time was spent talking about sequencing, people would value that a lot. The only sequencing has been in 457 and it seems a little late to just now get into that.
	BIM modeling
	Surveying
	spending too much time on the long way to get to an answer given there is a shorter, more effective way
	Some of the faculty are not useful.
	More hands on
	Some faculty are often very vague when it comes to assignments and the directions and deliverables required.
	Would have liked more hands on work but since covid cause d the school to shut down that was not an option.
	I think there should be a bigger emphasis on learning and becoming proficient in Excel. Also, there could be a little more focus on things like how to write a proper RFI, how to write a professional e-mail, and some of the soft skills as well that are so important in the industry.
	I think it would be really helpful if there were different options or pathways you could take after sophomore year so you could focus more on the type of constriction you are going into. I really enjoyed learning about Heavy Civil and Ground Up construction although I am not sure if I will ever do it. I also feel
	Cmgt 385 and 332 are not very effective, mostly due to the way they are taught. From a student prospective it is hard to dedicate your time and care about the class, when it is obvious that the teacher is not putting much forth to help the students learn. Navis Works and the other software taught in 332 would be very helpful, but it not enough time was spent. If it was taught like 210 you would know the software in and out.
	Computer lab upgrade.
	The 100 classes need to be improved
	Boring Lectures and lecturers.
	reiveiw periods going into each class. sometimes i went into a class and was a bit fuzzy on the prerequisite course material and need ed a refresher but none was given
	More labs and hands on experience would have been more enjoyable and educational. Especially in the first year while learning about construction materials and methods.
	Reading verbatim from powerpoints isn't worth the price of admission.
	135 class was helpful but I believe it would be more beneficial to take this class after 210.
	CM 457 was great at learning the software of P6 and how to cost load your schedule. Wish it went more in depth on sequencing of phases/activities.
	It would have been helpful to learn industry standard software like Procore, Building Connected rather than sketchup in CM 110.
	235 class was a lot of information to take in for 1 class.
	Could be more diverse to different sectors of construction
	More hands on community projects. Contact rotary international and work with them.

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	Computer lab maybe but that's about it
	More hands on surveying techniques
	Having teachers that are more comfortable with technology.
	Better computer lab
	advising within the department is basically useless. Unless you go directly to Chris, the other "advisors" do absolutely nothing.
	Professors not that into teaching anymore
	Online classes kind of sucked but nothing we could do about that.
	More practice needed writing reports and doing presentations. More hands on building experience with basics of plumbing, electrical, concrete, finishes would be good.
	More plan reading, more estimating, more computer technology
	More courses available for specialty contractors such as electrical mechanical would be great
	Making the program benefit ALL types of construction. We're not all going out to build skyscrapers and bridges.
	MEP processes
	I believe the CM department deserves a capstone project to contribute to the rest of Chico's campus!
	Help on homework
	Equipment can be improved.

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94	Please share any other comments/feedback you have regarding the Construction Management program:
	Overall, it's a great program. However, the program could focus more on adjusting the curriculum so that it will prepare more graduates for an entry level job in the industry.
	I would have liked to see a class dedicated to training of the tasks a Project Engineer will encounter at the beginning of their career to hone the skills the department teaches, at senior year level (400 Level), to build confidence and preparation.
	i love the cm program
	Don't make CMGT students do so many difficult upper GE courses
	Great program However the rooms in Langdon need to be remodeled/updated
	Special shout out to Patrick Brittle and Alan Bond for making this program great!
	Great major, I am glad I made the switch from Computer Science to Construction Management.
	Best Major on Campus!
	I recommend it to everyone I know who hasn't decided on what they want to study. Great program, great teaching, and a great experience.
	Awesome program. This was my third major and wish I could have found it right away.
	The CM department should build a stronger tutoring system for there department. The major requires so many difficult courses and although Chico State had tutoring available I think the CM department alone could organize a system to help students and especially newer students.
	Being the first Gen, I feel like you guys do an awesome job at what you guys are doing, my experience was optimal, I feel like I could handle any work handed to me. I can't complain about the education I received from this program!!!!!!!!!!!!!! Keep up the work g's :)
	More diversity, more sustainability, keep moving forward.
	The construction management program is a talented group. The instructors have great skill sets and offer a lot of resources. With some adjustments to the instruction methods, for example, reducing PowerPoint, simplifying the structure of the lower-level courses, and adding variance to the sectors of construction (public sector) this program could be top tier. On a final note, many community colleges in the north state have little to no focus on construction. With counties like Shasta, Humboldt, Siskiyou, Tehama, Butte, and Mendicino having a large focus on public works construction. It would be beneficial to start reaching out to them and recruiting students to the construction management program. CSU Chico is the only school that offers any type of study in engineering leaving a void and a need for future project managers in the top part of the north state.
	The only feedback that I would provide for the Construction Management is all positive. It definitely paved the way for all of the students to be successful in their career path.
	I think overall, the program was great. So many opportunities and benefits given to the students in the program. Was given an endless amount of free swag and gifts from companies.
	Fantastic program. Great department and faculty staff that offers lots of knowledge, great advise, and career opportunities by providing Company recruiting info sessions and interviews.
	Thanks!
	Would be cool to have a class that talked about the history of construction.
	I recommend it to anyone with any interest in the industry.
	Great program, will definitely send friends and family here
	Overall very satisfied.
	I really enjoyed it and learned skills that will benefit me for the rest of my life.
	Thank You!
	Best program. Looking forward to coming back after I graduate. Several professors have had an effluence on me. After gaining industry in the future I have hopes of teaching at a community college to bring a construction management program to more students , and establish and develop articulations to University that have a current program like Chico.
	Overall good experience. Picked the right major.
	COVID ruined my college experience.
	so thankful i took this program at this school
	I'd highly recommend Chico States Construction Management program over any other CM program.
	Probably would have been better without covid but online educations are shit at best.
	I benefitted from being on ASC for 2 years. I think it should be a mandatory class for 1 semester, base it off of different levels of commitment. Students who want to be highly involved can join serious teams such as; Commerical, Heavy Civil, Design-Build, Mechanical. Then somewhat involved; Mixed Use, Concrete Solutions, Electrical. Then lowest level involvement; all other open competition teams. On the serious teams they would do 4 practice problems and all the trainings. Somewhat involved could have 2-3 practice problems and all trainings. Lowest level involvement could have 1 practice problem and all trainings.
	I think its a really good program and would definitely recommend it to students coming out of high school. Really enjoyed my four years here and learned a lot.
	Overall good experience from a transfer student.
	Great program with awesome people from my fellow peers to the faculty.
	Wonderful program and I am very grateful to have been in it.
	it was fun
	Taking Calculus as a prereq for statics and mechanics classes based on trig, not calculus, doesn't make any sense. A thorough understanding of geometry and trigonometry would be invaluable in this program, but instead we fake our way through calculus, physics II, and chemistry, which doesn't do much for us in practical terms.
	Great program, I am very happy I decide to be apart of the CM program.

**ECC Graduating Senior Exit Survey
Results AY 2019-2020**

	I absolutely loved my time in the CM program at Chico State. I thought it was a very well taught and organized program that prepared me extremely well for a future career in construction management as well as giving me the resources to secure a well paying job immediately upon graduation. I have decided to pursue other longstanding goals unrelated to construction but my time and skills I've picked up from the program are priceless. Thank you all so much!
	Excellent program
	The wrong teachers are getting tenure and then wasting our time as students
	I wish there was a higher rating I could give 210 and Alan Bond. I wasn't super close with him but he teaches that class so well it seems to have the content of many other classes combined.
	Thank you to everyone at CSU Chico
	The professors in the department want to want the best for you and want you to succeed if you ever need any assistance in assignments and they are willing to help you
	Construction processes need to be detailed more step by step to understand durations of different stages of a project.

Appendix H- Alumni Survey Results (for reference only)

Construction Management Alumni Survey Results 2019-2020

65 Respondent's

NOTE: Not all respondents answered every question

1	The year you received your degree in the CMGT program from CSU Chico	2009 or before	2010	2011	2012	2013	2014
		1	13	7	7	6	9
		1.5%	20.0%	10.8%	10.8%	9.2%	13.8%
		2015	2016	2017	2018	2019	No Response
		4	12	0	0	0	6
		6.2%	18.5%	0.0%	0.0%	0.0%	9.2%

2	What was your academic status upon entering CSU, Chico	Freshman	Community College Transfer	4-Year College Transfer	Other
		31	23	4	1
		52.5%	39.0%	6.8%	1.7%

3	How many total years of college did it take for you to attain your degree in Construction Management?	4	5	6	>6
		12	30	13	4
		20.3%	50.8%	22.0%	6.8%

4	What is your current annual income	< \$41K	\$41-\$60K	\$61-\$80K	\$81-\$100K	>\$100K
		3	1	4	10	41
		5.1%	1.7%	6.8%	16.9%	69.5%

5	In what sector of the industry are you employed?	Commercial Building	Industrial	Heavy Civil	Residential / Multi-Family	Specialty (Sub-contractor)	Other
		37	1	8	3	1	9
		62.7%	1.7%	13.6%	5.1%	1.7%	15.3%
	Other Includes: Public Utility, Public Municipality, Armed Forces						

6	In terms of your early career path development (first 5 years) please indicate any of the following event(s) your company funded/sponsored your participation (mark all that apply)	Conferences	Workshops	Graduate Studies	Other
		37	38	3	7
		43.5%	44.7%	3.5%	8.2%
	Other Includes: QSP, PMP, AACE, DBIA				

7	How many professionally-related educational opportunities do you attend annually	0	1	2	3	4	>4
		14	16	16	4	5	3
		24.1%	27.6%	27.6%	6.9%	8.6%	5.2%

8	Please indicate how many community groups do you currently participate with.	0	1	2	3	4	>4
		29	16	8	3	0	2
		50.0%	27.6%	13.8%	5.2%	0.0%	3.4%

9	How often do you present information to upper management, clients (potential and current), investors?	Daily	Weekly	Monthly	Annually	Seldom	Never
		17	23	9	2	1	7
		28.8%	39.0%	15.3%	3.4%	1.7%	11.9%

Construction Management Alumni Survey Results 2019-2020

Student Learning Outcomes

	In order to help us understand the level of student preparedness you felt entering the workforce, please respond to the following Student Learning Outcomes (SLO) mandated by our accrediting body, the American Council for Construction Education (ACCE)	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Average Score 1-5 Scale
10	1. Create written communications appropriate to the construction discipline.	1 1.9%	4 7.4%	14 25.9%	24 44.4%	11 20.4%	3.74
11	2. Create oral presentations appropriate to the construction discipline.	2 3.7%	1 1.9%	12 22.2%	31 57.4%	8 14.8%	3.78
12	3. Create a construction project safety plan.	4 7.4%	15 27.8%	16 29.6%	16 29.6%	3 5.6%	2.98
13	4. Create construction project cost estimates.	0 0.0%	5 9.3%	17 31.5%	27 50.0%	5 9.3%	3.59
14	5. Create construction project schedules.	0 0.0%	4 7.4%	12 22.2%	26 48.1%	12 22.2%	3.85
15	6. Analyze professional decisions based on ethical principles.	1 1.9%	5 9.3%	5 9.3%	26 48.1%	17 31.5%	3.98
16	7. Analyze construction documents for planning management of construction processes.	0 0.0%	5 9.4%	14 26.4%	20 37.7%	14 26.4%	3.81
17	8. Analyze methods, materials, and equipment used to construct projects.	1 1.9%	5 9.4%	12 22.6%	27 50.9%	8 15.1%	3.68
18	9. Apply construction management skills as a member of a multidisciplinary team.	1 1.9%	4 7.5%	7 13.2%	28 52.8%	13 24.5%	3.91
19	10. Apply electronic based technology to manage the construction process.	1 1.9%	3 5.6%	11 20.4%	24 44.4%	15 27.8%	3.91
20	11. Apply basic surveying techniques for construction layout and control.	6 11.3%	8 15.1%	26 49.1%	10 18.9%	3 5.7%	2.92
21	12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	0 0.0%	5 9.4%	12 22.6%	25 47.2%	11 20.8%	3.79
22	13. Understand construction risk management.	0 0.0%	9 17.0%	13 24.5%	25 47.2%	6 11.3%	3.53
23	14. Understand construction accounting and cost control.	2 3.8%	8 15.1%	13 24.5%	23 43.4%	7 13.2%	3.47
24	15. Understand construction quality assurance and control.	4 7.5%	7 13.2%	20 37.7%	16 30.2%	6 11.3%	3.25
25	16. Understand construction project control processes.	2 3.8%	8 15.1%	19 35.8%	19 35.8%	5 9.4%	3.32
26	17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	1 1.9%	2 3.8%	12 22.6%	20 37.7%	18 34.0%	3.98
27	18. Understand the basic principles of sustainable construction.	1 1.9%	5 9.4%	16 30.2%	16 30.2%	15 28.3%	3.74
28	19. Understand the basic principles of structural behavior.	0 0.0%	1 1.9%	10 18.9%	28 52.8%	14 26.4%	4.04
29	20. Understand the basic principles of mechanical, electrical and piping systems.	4 7.5%	1 1.9%	17 32.1%	24 45.3%	7 13.2%	3.55

30	With regards to SLO 11 - Apply Basic Surveying Techniques for Construction Layout and Control. Please indicate which of the following survey instruments should graduates be able to utilize to perform construction layout and control (mark all that apply).	Building Level	Total Station	Laser Level
		33	31	36
		33.0%	31.0%	36.0%

Construction Management Alumni Survey Results 2019-2020

Curriculum Content

	Below are Construction Management specific subject areas that you took while enrolled in the CMGT program. Please rate the value of each of the following courses as it relates to the value of your educational experiences?	Not Valuable At All (1)	Seldom Valuable (2)	Somewhat Valuable (3)	Valuable (4)	Highly Valuable (5)	Average Score 1-5 Scale
31	CMGT 100 - Concepts of Construction	2 4.2%	5 10.4%	10 20.8%	15 31.3%	16 33.3%	3.92
32	CMGT 101 - Construction Career Prep (elective)	1 2.3%	3 6.8%	11 25.0%	19 43.2%	10 22.7%	4.08
33	CMGT 110 - Construction Graphics	3 6.1%	4 8.2%	10 20.4%	15 30.6%	17 34.7%	3.88
34	CMGT 135 - Construction Materials and Systems	0 0.0%	1 2.1%	6 12.5%	19 39.6%	22 45.8%	4.39
35	CMGT 210 - Analysis of Construction Drawings and Specifications	0 0.0%	1 2.2%	3 6.5%	14 30.4%	28 60.9%	4.65
36	CMGT 235 - Electrical and Mechanical Systems	2 4.0%	1 2.0%	8 16.0%	19 38.0%	20 40.0%	4.12
37	CMGT 270 - Building Information Modeling (elective)	2 4.3%	7 15.2%	9 19.6%	16 34.8%	12 26.1%	3.86
38	CMGT 275 - Architectural History (elective)	12 32.4%	12 32.4%	5 13.5%	5 13.5%	3 8.1%	3.33
39	CMGT 330 - Principles of Soil Mechanics and Foundations	0 0.0%	0 0.0%	7 14.3%	17 34.7%	25 51.0%	4.43
40	CMGT 332 - Construction Methods Analysis	3 6.1%	3 6.1%	9 18.4%	14 28.6%	20 40.8%	4.00
41	CMGT 335 - Construction Equipment	0 0.0%	3 6.0%	6 12.0%	19 38.0%	22 44.0%	4.24
42	CMGT 340 - Principles of Statics	1 2.1%	7 14.6%	5 10.4%	14 29.2%	21 43.8%	4.10
43	CMGT 345 - Mechanics of Materials	0 0.0%	8 16.7%	4 8.3%	17 35.4%	19 39.6%	4.10
44	CMGT 360 - Construction Project Management	0 0.0%	4 7.8%	2 3.9%	21 41.2%	24 47.1%	4.27
45	CMGT 380 - Green Building Practices and LEED Certification (elective)	2 5.0%	7 17.5%	9 22.5%	15 37.5%	7 17.5%	3.96
46	CMGT 440 - Temporary Structures	1 2.2%	5 10.9%	7 15.2%	15 32.6%	18 39.1%	4.16
47	CMGT 450 - Building Estimating	1 2.2%	1 2.2%	6 13.0%	15 32.6%	23 50.0%	4.43
48	CMGT 455 - Construction Cost Management	1 2.2%	1 2.2%	5 10.9%	22 47.8%	17 37.0%	4.33
49	CMGT 457 - Project Control and Scheduling	0 0.0%	0 0.0%	6 13.6%	16 36.4%	22 50.0%	4.59
50	CMGT 458 - Heavy Construction Estimating	2 4.4%	6 13.3%	7 15.6%	17 37.8%	13 28.9%	4.00
51	CMGT 460 - Legal Aspects of Construction	0 0.0%	2 4.3%	5 10.9%	8 17.4%	31 67.4%	4.63
52	CMGT 462 - Construction Contracts	0 0.0%	3 7.7%	3 7.7%	12 30.8%	21 53.8%	4.71

55	Please indicate your level of preparedness, as a result of your education at CSU, Chico, to enter the construction industry upon graduation?	Not at all prepared (1)	Slightly prepared (2)	Neutral (3)	Very prepared (4)	Completely prepared (5)	Average Score 1-5 Scale
		0	5	8	30	8	3.80
		0.0%	9.8%	15.7%	58.8%	15.7%	

56	Please indicate your overall rating of the program curriculum relevance to the construction industry?	Not relevant (1)	A little relevant (2)	Somewhat relevant (3)	Quite a bit relevant (4)	Very relevant (5)	Average Score 1-5 Scale
		0	2	7	32	10	3.98
		0.0%	3.9%	13.7%	62.7%	19.6%	

Construction Management Alumni Survey Results 2019-2020

57	Please list the strengths of the Construction Management Program:
	Data field corrupt for Spring 2020.

58	Please list any areas needing improvement in the Construction Management Program:
	More specific items for CM students that want to be superintendents not PMs
	I believe that the Chico state construction management program should focus on the implementation of the most up to date industry leading technologies, that are designed to streamline the building process, into all of its classes. I feel some of the classes put me ahead of the industry in the particular area, but I believe all of the courses should do the same. For example the survey classes, design, estimating & project management courses could have used better technologies in my opinion.
	I believe there should have been more focus on heavy civil construction work. Emphasis on soils, equipment, layout/surveying would be helpful. GPS equipment was not listed, but GPS is a huge part of the heavy civil industry.
	I would suggest having a class, or directing a class to build a project (figuratively) from start to finish during the semester. Almost like a Reno competition style where there are deliverables, schedule issues, project proposal, etc. I feel I learned a lot of skills in the program, but there are a lot more day to day skills that could be taught and will make Chico CM students stand out during internships and as new grads. Examples: 1) Teach how to write a professional e-mail listing action items, deadlines etc. 2) Have students find issues in drawings and practice writing clear concise, detailed RFIs. 3) Practice mock coordination meetings with typical jobsite coordination issues such as common ADA issues, framing conflicts, floor transition conflicts, etc. 4) Practice reviewing submittals against drawings and specs and finding issues or missing information. 5) Scoping out a work category and then comparing sub bids to ensure all items are included.
	Increase focus on the tasks of an entry level project engineer at a large construction company. I felt that we got a good sense of this on the heavy civil side but not as much on the commercial construction side. Examples include: review of commercial RFIs, relevant trade partner scope (HVAC, Plumbing, Electrical).
	Construction Ethics
	Construction planning class could of used improvement when I went through. the class seemed to be based on BIM more than planning. it would of been nice to tie it to a set of plans and talk about project phasing and locations of construction and laydown yards/parking. they could of brought in phasing and the cost associated with phasing work .
	How to write RFI's, review and submit Submittal's, managing different trades and looking for the answers in the plans/specs/ etc... This might have been covered in classes but I do not really remember it.
	I believe that the Chico state construction management program should focus on the implementation of the most up to date industry leading technologies, that are designed to streamline the building process, into all of its classes. I feel some of the classes put me ahead of the industry in the particular area, but I believe all of the courses should do the same. For example the survey classes, design, estimating & project management courses could have used better technologies in my opinion.
	I believe there should have been more focus on heavy civil construction work. Emphasis on soils, equipment, layout/surveying would be helpful. GPS equipment was not listed, but GPS is a huge part of the heavy civil industry.
	I would suggest having a class, or directing a class to build a project (figuratively) from start to finish during the semester. Almost like a Reno competition style where there are deliverables, schedule issues, project proposal, etc. I feel I learned a lot of skills in the program, but there are a lot more day to day skills that could be taught and will make Chico CM students stand out during internships and as new grads. Examples: 1) Teach how to write a professional e-mail listing action items, deadlines etc. 2) Have students find issues in drawings and practice writing clear concise, detailed RFIs. 3) Practice mock coordination meetings with typical jobsite coordination issues such as common ADA issues, framing conflicts, floor transition conflicts, etc. 4) Practice reviewing submittals against drawings and specs and finding issues or missing information. 5) Scoping out a work category and then comparing sub bids to ensure all items are included.
	Increase focus on the tasks of an entry level project engineer at a large construction company. I felt that we got a good sense of this on the heavy civil side but not as much on the commercial construction side. Examples include: review of commercial RFIs, relevant trade partner scope (HVAC, Plumbing, Electrical).
	Knowledge of how to read plans and specifications.

Construction Management Alumni Survey Results 2019-2020

59	Please list any specific feedback you have on the Construction Management curriculum:
	Supporting students after graduation should be granted to all, not only to the privilege. All lives matter. Age, color, ethnicity, or sex should not be the guidance for whom should get help to find a job and who should not.
	CMGT 135, 210, & 450 should be (2) semester long classes. There is so much to learn in one semester, it would benefit in the long run. Break up Soils and Surveying into (2) classes as well, a lot of information is condensed into (1) class.
	Continue internship programs and ASC Competitions - best platform for education
	More emphasis needs to be placed on plan reading, estimating and cost management modeling. Reduce the emphasis on BIM coursework. The percentage of the workforce that is going to truly interact with the model is small, especially in construction (architecture and engineering is huge, not CM).
	they need more teachers with work experience in all trades, when I got out it felt very geared towards commercial and not so much effort put in towards any other pathway.
	a number of classes were being taught by professors that were out of sync with industry and taught in a way or material which was not as beneficial as it should have been. The program needs to get and retain quality teachers and not rely on some of the tenured faculty which are not up to date on actual industry.
	I would like to know the "overview" of the program and see what I learned in the field and how it relates to the curriculum.
	I learned a lot and always speak highly of the Chico CM program. The suggestions above are because those are the things I learned on the job in my first year that may have been discussed in classes, but weren't necessarily incorporated into projects or activities that stuck with me.
	Get rid of the engineering classes they have almost no relevance. More hands on lab type class would have been helpful.
	Although I had a great teacher, the temporary structures/physics class was probably one of the least useful classes I took. Since I ended up working for a subcontractor I wish there had been more classes for specific trades instead of just one MEP class. Although O'Bannon taught it well.
	Great mix of business, science, and CM courses. 10 years later I still use my foundation of accounting, finance, law, physics, statics, scheduling etc. All around great balance.
	I believe that there should be an emphasis on learning Spanish. I use it every day to communicate with the field workers and it is probably one of the most helpful skills that I have.
	All project management and legal classes were most helpful to me. I would say more specific classes on RFI/submittal processes and contract/legal would be helpful as this is the first step to most companies.
	Increased focus on industrial construction. Learning about the different welding processes, welding procedures, and materials. Shop time with hands on work with these machines and processes would be beneficial. Learning of some basic trade skills (bolted connections, welding, pipe fit up, hydro testing, basic electrical wiring, hands on rigging, motor alignments, DDC controls). This could be an elective class or incorporated into lab time with current classes.
	None, great program and excellent comradery. Still speak to a lot of guys from my classes.

60	Please share any other comments/feedback you have regarding the Construction Management program:
	Too much dead weight, not enough experience from the young professors, and too much focus on BIM.
	get and retain quality teachers who had careers in the industry. tenured professors have been out of industry for too long and their dated methods of teaching and material hurts the program.
	Great program. I hope it continues to lead the industry for years to come.
	Keep up the good work and keep putting on a program I can proudly represent!
	Overall all a great program that set us up for success and gave us every opportunity in the world to have a job by graduation!
	Great program with great people.
	Probably the best major you can have! Great job!
	My experience at CSU Chico was some of the best years of my life. I have a very successful career as a result of the degree, however I have even more valuable relationships and memories as a result of the comradery of the student in the program.
	I don't believe I technically graduated, I had units left I was unable to wait a summer for to complete and come back in fall. I was starting a family and didn't have the time. I've since started my own business and was able to apply my years in the program to the CSLB educational requirements and work experience to get my license. It

Appendix I- Employer Survey Results (for reference only)

Construction Management Employers Survey Results 2019-2020

55 Respondent's

NOTE: Not all respondents answered every question

1	What type of work does your company perform?	Commercial Building	Industrial	Heavy Civil	Residential	Specialty (Sub-contractor)	Other
		33	6	10	2	4	6
		54.1%	9.8%	16.4%	3.3%	6.6%	9.8%
Other Includes: Consulting, Marine, Multi-Family, Rail, Solar							

2	Are you a CSU, Chico CMGT graduate?	Yes	No
		21	19
		52.5%	47.5%

3	Approximate number of CSUC CMGT graduates you supervise?	1-5	6-10	11-25	26-50	More than 50
		26	9	4	0	0
		74.3%	25.7%	11.4%	0.0%	0.0%

4	Does your organization have a rotation or other type of training for new CMGT graduates?	Yes	No
		30	40
		42.9%	57.1%

5	Does your organization provide support for continuing education of employees (including grad school)?	Yes	No
		33	7
		82.5%	17.5%

6	Does your organization encourage employees to seek a contractors' license?	Yes	No
		6	34
		15.0%	85.0%

7	Does your organization have a matching gift program for charitable donations by employees?	Yes	No
		17	22
		43.6%	56.4%

In order for our degree program to maintain currency with the software programs used in the industry, and specifically by your firm, please indicate which are your primary software application for each of the following.

8	Estimating	OST	HCSS	Timberline	Excel	WinEst	Bluebeam
		14	7	6	5	4	3
		25.0%	12.5%	10.7%	8.9%	7.1%	5.4%
		BuildConnect	Sage	CostX	QuikBid	Autodesk	Other
		3	0	2	2	2	8
		5.4%	0.0%	3.6%	3.6%	3.6%	14.3%
Others Include 1 each for: SharpSoft, Accubid, Smart Bid, ProEst, MC2, Sage, Plan Swift							

9	Scheduling	P6	MS Project	Excel	Vplanner	Asta	Syncro
		27	14	2	1	1	1
		58.7%	30.4%	4.3%	2.2%	2.2%	2.2%

10	Project Management	Procore	Vista/Viewpoint	Prolog	PlanGrid	Primavera	Other
		14	5	3	2	2	5
		45.2%	16.1%	9.7%	6.5%	6.5%	16.1%
Others Include 1 each for: SCMIC, HeavyJob, MS Axis, Excel, Timberline							

11	Modeling	Navis	Revit	BIM360	ACAD 3D	Agtek	Other
		11	10	7	3	3	6
		27.5%	25.0%	17.5%	7.5%	7.5%	15.0%
Others Includes 2 each for Trimble, BIM Glue, and 1 each for Plannetry, Tekla							

12	Paperless Workflows	Procore	PlanGrid	Vista/Wiewpoint	Bluebeam	Prolog	Other
		7	5	4	4	2	10
		21.9%	15.6%	12.5%	12.5%	6.3%	31.3%
Others Include 1 each for BIM360, Egnite, Sage, Adobe, MS Axis, CMiC, Project Sight							

Construction Management Employers Survey Results 2019-2020

In order for our degree program to maintain currency with the software programs used in the industry, and specifically by your firm, please indicate which are your primary software application for each of the following.

13	Punchlist Work	PlanGrid	Procore	Bluebeam	Excel	HCSS	Other
		13	11	4	4	1	3
		36.1%	30.6%	11.1%	11.1%	2.8%	8.3%
	Others Include 1 each for Project Sight, Viewpoint, CMiC						

14	Construction Drawing Management	PlanGrid	Procore	Bluebeam	HCSS	Vista/Viewpoint	Project Sight
		13	13	6	2	1	1
		36.1%	36.1%	16.7%	5.6%	2.8%	2.8%
	Other Includes:						

Student Learning Outcomes

	Our accreditation agency, The American Council for Construction Education, has established Student Learning Outcomes (SLO) that set the minimal skills and knowledge Chico State Construction Management students should possess upon graduation. In order for our degree program to determine the level of our student's preparedness, please rate how the students you supervised based upon the following skill sets.	Very Unprepared (1)	Unprepared (2)	Average (3)	Prepared (4)	Very Prepared (5)	Average Score 1-5 Scale
15	1. Create written communications appropriate to the construction discipline.	0 0.0%	1 2.9%	14 41.2%	16 47.1%	3 8.8%	3.62
16	2. Create oral presentations appropriate to the construction discipline.	0 0.0%	2 5.9%	9 26.5%	19 55.9%	4 11.8%	3.74
17	3. Create a construction project safety plan.	0 0.0%	4 11.8%	21 61.8%	8 23.5%	1 2.9%	3.18
18	4. Create construction project cost estimates.	0 0.0%	9 26.5%	17 50.0%	8 23.5%	0 0.0%	2.97
19	5. Create construction project schedules.	0 0.0%	5 14.7%	19 55.9%	9 26.5%	1 2.9%	3.18
20	6. Analyze professional decisions based on ethical principles.	0 0.0%	1 2.9%	6 17.6%	25 73.5%	2 5.9%	3.82
21	7. Analyze construction documents for planning management of construction processes.	0 0.0%	2 5.9%	10 29.4%	19 55.9%	3 8.8%	3.68
22	8. Analyze methods, materials, and equipment used to construct projects.	0 0.0%	2 6.1%	12 36.4%	18 54.5%	1 3.0%	3.55
23	9. Apply construction management skills as a member of a multidisciplinary team.	0 0.0%	0 0.0%	7 21.9%	17 53.1%	8 25.0%	4.03
24	10. Apply electronic based technology to manage the construction process.	1 2.9%	0 0.0%	7 20.6%	15 44.1%	11 32.4%	4.03
25	11. Apply basic surveying techniques for construction layout and control.	3 9.1%	5 15.2%	20 60.6%	5 15.2%	0 0.0%	2.82
26	12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	0 0.0%	4 11.8%	17 50.0%	11 32.4%	2 5.9%	3.32
27	13. Understand construction risk management.	1 3.0%	5 15.2%	19 57.6%	6 18.2%	2 6.1%	3.09
28	14. Understand construction accounting and cost control.	0 0.0%	7 21.2%	19 57.6%	7 21.2%	0 0.0%	3.00
29	15. Understand construction quality assurance and control.	0 0.0%	5 15.2%	18 54.5%	10 30.3%	0 0.0%	3.15
30	16. Understand construction project control processes.	0 0.0%	3 9.1%	15 45.5%	15 45.5%	0 0.0%	3.36
31	17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	0 0.0%	6 17.6%	19 55.9%	9 26.5%	0 0.0%	3.09
32	18. Understand the basic principles of sustainable construction.	0 0.0%	1 3.1%	16 50.0%	14 43.8%	1 3.1%	3.47
33	19. Understand the basic principles of structural behavior.	0 0.0%	1 3.0%	19 57.6%	13 39.4%	0 0.0%	3.36
34	20. Understand the basic principles of mechanical, electrical and piping systems.	0 0.0%	4 12.9%	17 54.8%	9 29.0%	1 3.2%	3.23

Construction Management Employers Survey Results 2019-2020

35	With regards to SLO 11 - Apply Basic Surveying Techniques for Construction Layout and Control. Please indicate which of the following survey instruments should graduates be able to utilize to perform construction layout and control (mark all that apply).	Building Level	Total Station	Laser Level
		13	22	21
		23.2%	39.3%	37.5%

Curriculum Content

	Please rate the perceived value of each of the following Construction Management courses with the understanding that you must assume the content is based upon the title of the course.	Not Valuable At All	Seldom Valuable (1)	Somewhat Valuable (2)	Valuable (3)	Highly Valuable (4)	Average Score 1-5 Scale
36	CMGT 100 - Concepts of Construction	0	1	0	17	15	4.39
		0.0%	3.0%	0.0%	51.5%	45.5%	
38	CMGT 110 - Construction Graphics	0	2	7	11	13	4.06
		0.0%	6.1%	21.2%	33.3%	39.4%	
39	CMGT 135 - Construction Materials and Systems	0	1	5	14	13	4.18
		0.0%	3.0%	15.2%	42.4%	39.4%	
40	CMGT 210 - Analysis of Construction Drawings and Specifications	0	0	1	10	22	4.64
		0.0%	0.0%	3.0%	30.3%	66.7%	
41	CMGT 235 - Electrical and Mechanical Systems	0	3	9	5	15	4.00
		0.0%	9.4%	28.1%	15.6%	46.9%	
44	CMGT 330 - Principles of Soil Mechanics and Foundations	0	5	5	8	16	4.00
		0.0%	14.7%	14.7%	23.5%	47.1%	
45	CMGT 332 - Construction Methods Analysis	0	2	4	8	19	4.33
		0.0%	6.1%	12.1%	24.2%	57.6%	
46	CMGT 335 - Construction Equipment	2	6	8	10	7	3.42
		6.1%	18.2%	24.2%	30.3%	21.2%	
47	CMGT 340 - Principles of Statics	2	8	9	10	4	3.18
		6.1%	24.2%	27.3%	30.3%	12.1%	
48	CMGT 345 - Mechanics of Materials	2	8	10	9	4	3.15
		6.1%	24.2%	30.3%	27.3%	12.1%	
49	CMGT 360 - Construction Project Management	0	1	2	5	25	4.64
		0.0%	3.0%	6.1%	15.2%	75.8%	
51	CMGT 440 - Temporary Structures	1	8	9	8	7	3.36
		3.0%	24.2%	27.3%	24.2%	21.2%	
52	CMGT 450 - Building Estimating	0	1	3	9	19	4.44
		0.0%	3.1%	9.4%	28.1%	59.4%	
53	CMGT 455 - Construction Cost Management	0	0	4	10	18	4.44
		0.0%	0.0%	12.5%	31.3%	56.3%	
54	CMGT 457 - Project Control and Scheduling	0	0	1	6	26	4.76
		0.0%	0.0%	3.0%	18.2%	78.8%	
55	CMGT 458 - Heavy Construction Estimating	4	8	2	11	8	3.33
		12.1%	24.2%	6.1%	33.3%	24.2%	
56	CMGT 460 - Legal Aspects of Construction	0	0	3	11	19	4.48
		0.0%	0.0%	9.1%	33.3%	57.6%	
57	CMGT 462 - Construction Contracts	0	0	4	12	17	4.39
		0.0%	0.0%	12.1%	36.4%	51.5%	

Please indicate the level of preparation demonstrated by the Chico State Construction Management graduate(s) you supervise.

	Effective problem solvers	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
58		0	1	5	17	10	4.09
		0.0%	3.0%	15.2%	51.5%	30.3%	

	Effective oral communicators	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
60		0	0	4	18	11	4.21
		0.0%	0.0%	12.1%	54.5%	33.3%	

	Function effectively on multi-disciplinary teams	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
61		0	1	2	17	13	4.27
		0.0%	2.7%	5.4%	45.6%	34.9%	

Construction Management Employers Survey Results 2019-2020

62	Please list the strengths of the Construction Management Program:
	As long as the curriculum is structure and taught from an industry relation actual construction foundation is where the graduates are prepared for the real life of construction.
	Most of the kids coming out of the program are hard working kids that have a background of working when they were younger and are eager to learn.
	Equipment and Soils classes
	The content is great, but the things that makes Chico different than other schools are the students, for the most part, are prepared to communicate in person. The social component of the school helps, but the way department pushes summers internships rather than summer school is a large contributing factor. Pushing the interview process at the freshman levels prepare them for their junior and senior years too.
	Students are resourceful, hardworking, team oriented and effective at solving day to day problems.
	Practical experience showcased by the staff as well as given directly to the students in a variety of ways (i.e. internships, hands on construction projects and volunteer opportunities, etc.).
	Communication skill's- CSU Chico still leads in this area, but other schools are catching up. Construction is a communication business.
	The CM graduates are very well rounded. They have good plan reading skills, combined with solid software skills.
	The CM program at Chico is excellent and the faculty and staff are incredibly easy to work with. The students we have hired from Chico CM have been amazing and we are lucky to have them!
	Since I have not gone through the program this is difficult to answer. The people I have had from the program have a good base knowledge and are prepared to start in the industry.
	Great at problem solving and understanding the general principals of our industry.
	I feel that the Chico State CM graduates are very prepared to work in a team/group environment. The program successfully prepares them to work as a member of a team (through the competitions and assignments). I also appreciate Chico State's partnership with construction businesses to see that students get real world exposure through internships before entering the work force.
	Majority of our employees (past & present) Have had the ability to communicate with Tradespeople as well as Owners, Eineers etc. This is the most important skill a Construction Manager can have.
	The kids that we get from Chico are way more well rounded than the Cal Poly kids. Chico kids are hungry to work, learn, and get involved.
	Students are highly team oriented and work effectively in a group structure. Construction Management prepares students for the types of projects they may work on and teach the language of construction. There are many opportunities to get real life experience in what we do from connecting students to companies to community outreach programs. The networking component is probably the greatest benefit offered.
	Verbal and written skills were very apparent. Over all life cycle of a project was taught very well. Program equipped graduate with a solid foundation of basic knowledge, allowing details to be picked up very easily.
	students are prepared for working at a GC

63	Please list any areas needing improvement in the Construction Management Program:
	Scheduling is a needs to improve area. As we implement Last Planner we are shifting the culture of our superintendents from push mentality to a pull mentality. Understanding how to plan production and track it down to a daily function is very important going forward in our industry.
	Communication skills could be a little better but at the end of the day they are only 21-22 year old kids
	more focus on equipment and legal aspects
	(1) More emphasis on the safety side of our industry. There are colleges that provide degrees in Safety in which we recruit out of state for. (1) It seems as if there is more of a push towards vertical construction. The degree can be equally tailored towards Heavy Civil as well.
	Presentations / Public speaking, Total station surveying, modeling, basic project engineer skills (like writing RFIs, reviewing submittals, posting As-Builts, writing daily reports, etc) - it could be an entire course.
	Additional focus on the other areas of construction. For many years the program has had a heavy civil focus and although many students end up in that area of expertise, it would be helpful to have classes focused on other Construction specialties (i.e. Commercial - explore the vast types of construction, Residential - high density vs. custom homes vs. track developments, Specialty Areas - Marine, CM, Inspection Services, etc.).
	Technical/software skills- Chico continues to lack in this area. CSU Chico was once the leader in this, but not anymore. They need to get back on that train!
	Communication can be a little more professional. Looking for more MEP system awareness.
	One area that students could improve is their professionalism. This would be focused on communication, interview skills, attire, and overall professionalism interacting with industry professionals.
	Hands on experience in the construction industry. Whether that be an internship or experience being on a job site in some capacity. There are a lot of good handyman jobs in Chico through the CATS job program. Encourage students to get experience any way they can.
	Since I don't know your program it is again hard to say. But generally, I don't know that students understand they are joining an often confrontational environment. Not everyone is suited for it.
	Oral communication
	I can't say that I think the student needs more exposure at the college level. I have seen a weaknesses in estimating and scheduling, but this is mostly due to having not had that much experience with each task.
	Getting these kids hands on experience is the most valuable thing we as an industry can be doing. The class work is great but they really don't understand it unless they have learned first hand. I know this is hard to do but it would be great.
	Humility. The students coming out of college lack an understanding of the trajectory and timeline of a college graduate. If it takes longer than 6 months to get promoted, they leave. Writing skills are still a challenge when working with new graduates. RFIs should be second nature, but for most, they are just learning to write them on the job.
	I believe all programs need to find a way to ensure their students can read plans and specification.
	Being a Chico State CM Grad and having multiple years in the industry I often think back on the things I wish I was more exposed to. One of these is a technical RFI writing course. I know that as a student we went over the RFI processes, however, from my experience and mentors, writing a good RFI is almost like an art. Being able to properly reference contract documents, having an intro, stating the issue, listing the question, listing possible resolution (if any), and including back-up sketches or drawing/spec sheets are all part of technical writing that I feel I wasn't exposed to. I feel that a technical writing class (or add-on to a current course) that teaches students how to craft a well written RFI could be useful for them in their future careers. This not only helps students learn to write more technically but forces them to dig through a set of drawings, further exposing them to plan reading, and helping to improve their critical thinking. Maybe even RFI writing workshops giving easy - difficult questions to a group of students ranging from seasoned interns to the greenest of green. Just to pre-expose them to what to expect outside of college. Maybe this can be lumped in with a 400 Level class as most students already have some sort of experience with school and internships and they should be able to dig through drawings to some extent.

Construction Management Employers Survey Results 2019-2020

	Writing skills, telephone skills, email and email management, better understanding of contracts and contract requirements, better time management and follow up skills.
	BIM, Lean, and learning how to plan/pull vs push (old school way if managing work) is how our industry is evolving into planning production.

64	Please list any specific feedback you have on the Construction Management curriculum:
	Keep relating all content to real construction examples.
	Maybe spread out the pre-sessions'. When there are more than 3 companies visiting on any particular day, the gathering seems to be noticeably low in attendance.
	In general, the students from CSUC are superior and have a better fit within our company than others. This is likely due to the location of our work as well as the type of student that elects to spend their college career in Chico. We are a company that takes pride in our small, Midwestern type values which I think most Chico State students appreciate.
	CSU Chico needs to add faculty and they need to get ahead of the technology.
	Keep working commercial construction into the program.
	I have had great success with Chico State students, and I would like to work with more in the future.
	The Construction Management Department has a Pay to play (access to Students) policy which puts small Contractors at a disadvantage. This is a Public School and all Contractors should have equal access.
	Most of my scores are low but that doesn't mean that aren't great kids they just don't have the experience yet and a lot of what they really do isn't taught in school. Every company is different.
	great job!
	Thank you for letting me share my opinions in the above. There are currently only 3 CSUC Grads at Bernard's, and as we aim to acquire more, I have tried to check in with the managers of the other 2 students to answer all of the questions to the best of my abilities.
	I'm very involved in the IAC and shaping the CM curriculum, so I am very happy with the direction the program is going.

**CHICO STATE CONSTRUCTION MANAGEMENT QIP Meeting
AY 2020-2021 FINAL ASSESSMENT REPORT RESULTS**

November 5th, 2021

7 AM – 11:00 AM

Participants

Bond, Alan
Brittle, Patrick
Coakley, Brendan
Holman, Rich
Old, Brian
McCutcheon, Scott
Patterson, Marie
Schwarz, Joseph
Souder, Chris

OBJECTIVE:

The purpose of the Quality Improvement Meeting (QIP) meeting is to provide a forum where faculty can provide comments, have general discussions, and create action plans based on the information within the Final Assessment Report (FAR) for AY 2020-2021. The FAR is produced annually and provided to faculty for review approximately 1 month before the annual QIP meeting.

OUTSTANDING QIP ACTION ITEMS – AY 2020-2021

At the time of publishing the AY 2019-2020 FAR, there were 3 remaining items (from the original 30) action items from last year's QIP Meeting held in November of 2019. At the time of this QIP meeting, those 3 items have been resolved.

- Refer to the meeting agenda for the specific update of these 3 items

ACTIONABLE ITEMS

- Actionable items will use the **name** of the responsible party.
- All Assessment Coordinator action items will show **AC** as the responsible party.
- The **AC** is also responsible to produce monthly updates of these meeting notes to track progress through Spring and Fall 2021 until completion, preferably before the AY 2020-2021 QIP meeting.

TOPICS REVIEWED

1. SLO Indirect Assessment Scorecard
2. Changes to Indirect Assessment Surveys
3. Strategic Plan
4. I-R-DA Map
5. DPO Indirect Assessment Scorecard
6. Others

DISCUSSION ITEMS

1. SLO Indirect Assessment Results Scorecard

This document garnered a significant amount of attention and time was spent analyzing why the SLO indirect results from the Alumni and Employers surveys were dramatically different from the prior surveys from 2 years ago.

- The performance criteria were increased from 3.5 to 4.0. This appears to have been too aggressive of a jump towards quality improvement.
 - **ACTION: The performance criteria will be reduced to 3.75 by the AC.**
 - **ACTION: An introductory paragraph to the Employers Survey will be added to set the premise of the indirect assessment and will be added by Chris. The target for completion (End of January 2022) for the deployment of the next Alumni survey in March 2022**
- SLO Indirect Assessment Margin for Error is too narrow. It was suggested to consider the use of yellow for near misses that are to be monitored, but no action is taken until a trend is noted. Faculty must determine what will be considered a near miss (-10%?).
 - **ACTION: Chris to re-analyze SLO Indirect Survey (Appendix D) to adjust to 3.75 and implement the Yellow “Near Miss” category.**

2. Changes to Indirect Assessment Tools - Surveys

Senior Exit Survey:

- It was suggested to consider breaking the class feedback survey questions into two increments: One during a 300-level course to review prior courses and one for the later classes, 300 level and up.
- The IAC CC suggested the creation of a Sophomore Exit Survey as a means of more immediate feedback in terms of 100 and 200-level course curricula and teaching feedback.
 - **ACTION: Create and Implement a Sophomore Exit survey to be administered in CMGT 235.**

Alumni Survey:

- The participation rate was low. Only 65 / 337, or 19%, responded.
- Survey response rates need to be improved
- Targeting audience (3 – 5 years post-graduation)
 - **ACTION: Rich to update the list to capture more participants within the targeted range by reaching out to all companies asking for an updated list of graduates in the 3-5 year range.**
 - **ACTION: Rich to modify the survey (End of January 2022).**
 - **ACTION: Revised the question for Alumni regarding the course curriculum to allow individual industry experience to point to the importance and relevance of the course curriculum. An example would be “how often in your job do you use the curriculum taught in CMGT XXX”.**

Employers Survey:

- The participation rate was very good. 55 / 76, or 72%, responded.
- Survey needs to go to Upper Management personnel and not HR staff.

- **ACTION: Chris to ensure the IAC list is current and accurate and ensure surveys go to upper management, NOT human resources.**
- The IAC CC suggested that this survey be amended to include a question asking the employer about the certain roles and responsibilities of the CMGT graduates they are rating (i.e. PE, PM, Est...) to put in perspective the skill sets they are rating in the survey. This may help the survey results by targeting responses instead of generalizing them.
 - **ACTION: Chris to modify the survey by adding/amending questions to targeted responses.**
- IAC noted issues with the survey questions, the survey needs to be cleaned up
 - **ACTION: Chris to QC the survey for improvements.**
- Revise the introductory paragraph of the survey that explains the premise of the survey. *“We are requesting that the responses should “compare” our graduates vs. other CMGT graduates and specifically exclude any Engineering graduates employed at the company”.*
 - **ACTION: Chris to revise the introduction paragraph before deployment of the next survey.**

Intern survey: Should a question be added to ask the students...

- Regarding how the student compared to other peers?
- Should we be asking if a student wants a specific type of internship?
- Discussed the overall intent of the “Intern Survey” – Is this specific to our Internship opportunities and the companies that come to recruit or more of an assessment of the student construction work experiences.
- The Educational Unit reviewed the Intern Survey and made modifications to be implemented in the next issuance of the survey.
 - **ACTION: Chris to make changes discussed to the Intern Survey.**

3. New Strategic Plan

Within the Educational Unit’s Quality Improvement Plan there is the Strategic Plan.

- The CMGT Department will create measures of success (Goals) to achieve the CMGT Dept.’s Strategic Plan, which will generate an action plan moving forward.
 - **ACTION: Marie to set up a meeting with CMGT to review and identify priorities as a Department through our Strategic Plan (By December 2021)**

4. AY 2021-2022 I-R-DA map:

A general discussion for further refinement.

- CMGT 460/462 – there needs to be only 1 DA for SLO 13 and 17.
 - **ACTION: CAC to consult with Joseph and make the change to the I-R-DA Map.**
- SLO 15 does not belong in CMGT 455 Cost Management.
 - **ACTION: CAC to consider reassignment of this SLO DA to another course.**

5. DPO Assessment Results

- At the time of the QIP meeting, the Senior Exit Survey results were not available and were not reviewed as part of this meeting.

- **ACTION: CAC to review SES results when available.**
- The Employer and Alumni Survey data were not reviewed in this year’s QIP meeting. The most recent data set was obtained in the Summer of 2020. The data analysis and action plans are outlined in the Final Assessment Report (FAR) AY2019-2020.
 - **ACTION: CAC to review the results of these surveys before deploying the refreshed Employer and Alumni surveys noted above.**

6. Others

Where is SWPPP-BMP-QSP covered in the curriculum?

- CMGT 462 teaching the regulations of SWPPP and QSP.
- CMGT 458 was previously discussed as the targeted course for SWPPP and QSP, but the faculty agree the content may fit better in CMGT 330
- An outline is going to be produced to itemize and organize the content
 - **ACTION: Scott and Chris collaborate and create an outline of the proposed content for SWPPP and QSP**

DPO 5 Possible revisions:

- Maybe add 5D? – Internships and encourage Sophomores to engage in internships
- Maybe add 5E? - Community Service separate from Service Learning.
- How can we track student involvement?
- Discussed modifying the survey to account for those working in construction who did not have an official “Internship”

End of Meeting