Program Improvement Report or
Final Assessment Report
AY 2016-2017

Department of Construction Management
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 findings and proposes action plans resulting from 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 on the *QIP* in effect at the time 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

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 Report:*

Edition	Date	Assessment	Purpose
1	S2015	AY 2016-2017	Memorializing the Construction Management Departments Strategic Plan, Assessment Plan, and Assessment Implementation Plan.

Final Assessment Report

Academic Year 2016-2017

Bachelor of Science in Construction Management

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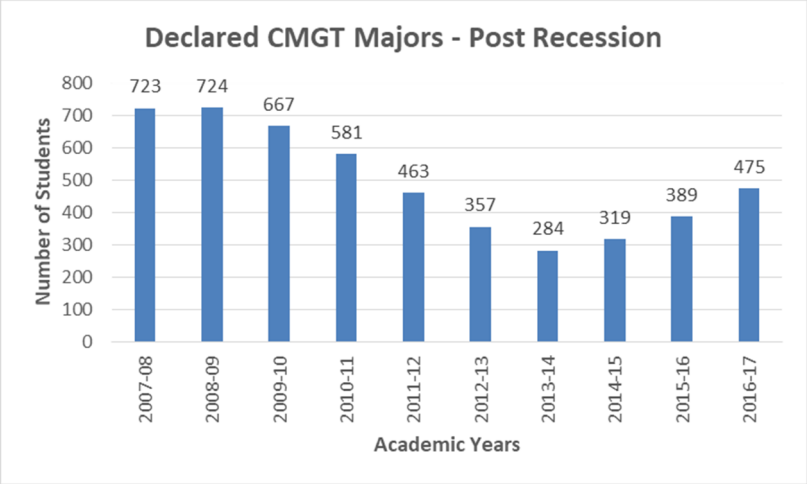
Introduction

New to the Department of Construction Management for our Fall 2015 accreditation visit (ACCE) was the switch from Prescriptive Based accreditation standards to Student Learning Outcome accreditation standards. Despite efforts to fully grasp the breadth and depth of these changes, this Department struggled to complete the transition within the available time line prior to the accreditation visit.

The ACCE visiting team had numerous questions for faculty and staff during their Educational Unit and Degree Program review and investigation. This resulted in a final re-accreditation report citing 5 program weakness, 4 program concerns, and 5 undeveloped potentials. Despite these deficiencies, the Construction Management program was awarded with a 6 year re-accreditation. As a condition of this re-accreditation, the program was given three years to correct the noted weakness, concerns, and undeveloped potentials with annual Progress Reports to ACCE for the first three years. Our 2nd Year Progress Report is due November 1st, 2017.

This report is formatted with two distinct sections. The **Assessment Summaries and Observation** section reports on all assessment data obtained during AY 2016-2017, but provides no suggestions for possible reactions to the results. The **Assessment Action Plan** section provides specific changes to be made to correct assessments not meeting the stated performance criteria. Some action plans are quite complex and lengthy given the Departments continuing education of "Best Practices" for application of Student Learning Outcomes based standards.

An important consideration when reviewing the assessment findings is that the Construction Management Department has been growing at an average rate of 19% per year for the past 3 academic years. This demonstrates the growth and health of the US economy and increase in demand for Construction related degrees. Over the past 4 academic years, this department's faculty has experienced the retirement of 1 full-time tenured faculty, 2 full time lectures, and 3 full-time tenured faculty enter the FERP. This has resulted in a plethora of temporary lectures, teaching a variety of courses, sometimes for only one semester. This has presented significant challenges to make successful curriculum additions, rewrites and reorganization to comply with the new SLO standards.



Assessment Summaries and Observation

The Construction Management Degree Program uses an embedded assessments process attached to specific assessment tools (quiz, exam, activities, labs, group work) in selected courses to directly assess the students' achievement of the various Student Learning Outcomes, **Appendix A**. The road map for this process is the I-R-DA Map (introduce, reinforce, and direct assessment), **Appendix D**. This map indicates what course offerings are responsible for introducing, reinforcing, and finally direct assessing the specific SLO content. As the SLO content is introduced and reinforced, they are directly assessed in that course. However, it is in the direct assessment as assigned by the I-R-DA map that is used to measure the students' depth of knowledge on an SLO topical category.

The I-R-DA Map has been revised on the following occasions:

History of Modifications to the *Introduce-Reinforce-Direct Assessment Map:*

Edition	Date	Assessment	Purpose
1	F2014	S2015	ACCE re-accreditation visit (new standards) F2015
2	S2016	AY2016-2017	This revision was made for two purposes: 1.) Simplification of the previous I-R-DA Map, and 2.) Reduction in the number of classes using embedded assessment of the same SLO. ***This report is based upon this assessment data.***
3	S2017	AY2017-2018	This revision was vetted through the CMGT Curriculum Committee for two purposes: 1.) Ensure a logical I-R-DA path of the content appropriate and sequentially used throughout the degree program, and 2.) Move the direct assessment into 300 and 400 level classes as much as possible. ***The assessment will occur AY2017-2018***

Student Learning Outcomes (SLO's) – Appendix A

Direct Embedded Assessment – Appendix E

For each embedded direct assessment of a Student Learning Outcomes, minimum department wide performance criteria was established at 70/70, defined as 70% of the students taking the assessment will achieve a score of 70%, or better. Some instructors have opted for higher performance criteria.

A complete summary of all direct assessment data from the AY2016-2017 is presented in SLO-CLO Scorecard, **Appendix E**. This scorecard lists the SLO, the CMGT course where the embedded direct assessment occurs, the corresponding Course Learning Outcome (CLO), the assessment tool, the performance criteria, and finally the assessment result.

The department performed a total of 43 direct assessments in relation to the 20 Student Learning Outcomes. 25 of these direct assessments met their stated performance criteria.

SLO's Needing Improvement - The following SLO's fell short of the stated performance criteria:

SLO 3: Create a construction project safety plan.

- Result: 60%/80% - CMGT 360

SLO 5: Create construction project schedules. One of two direct assessments failed to meet the stated performance criteria:

- Result: 67%/70% - CMGT 457

SLO 6: Analyze professional decisions based on ethical principles. One of two direct assessments failed to meet the stated performance criteria:

- Result: 34%/70% - CMGT 450

SLO #7: Analyze construction documents for planning and management of construction processes. Two of three direct assessments failed to meet the stated performance criteria:

- Result: 53%/79% - CMGT 360
- Result: 65%/70% - CMGT 457

SLO #8: *Analyze methods, materials, and equipment used to construct projects*. One of three direct assessments failed to meet the stated performance criteria:

- Result: 47%/70% - CMGT 335

SLO #10: *Apply electronic-based technology to manage the construction process.* Two of five direct assessments failed to meet the stated performance criteria:

- Result: 53%/70% - CMGT 110
- Result: 67%/70% - CMGT 210

SLO #12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process. Two of two direct assessments failed to meet the stated performance criteria:

- Result: 57%/79% - CMGT 360
- Result: 57%/79% - CMGT 360

SLO #13: Understand construction risk management.

- Result: 55%/70% - CMGT 460

SLO #17: Understand the legal implications of contract, common, and regulatory law to manage a construction project. One of two direct assessments failed to meet the stated performance criteria:

- Result: 46%/75% - CMGT 462

SLO #19: Understand the basic principles of structural behavior. Six of six direct assessments failed to meet the stated performance criteria:

- Result: 35%/84% - CMGT 345
- Result: 45%/84% - CMGT 345
- Result: 12%/84% - CMGT 345
- Result: 45%/84% - CMGT 345
- Result: 34%/84% - CMGT 345
- Result: 0%/84% - CMGT 345

False Positives – The following SLO's achieved 100% of the stated performance criteria. The ACCE standards committee states that these results are false positives (however this in not in the ACCE standards). They believe that "best practices" dictate further investigation into the rigor of the content being taught, the rigor of the direct assessment, the manner in which the direct assessment is being administered, and confirmation of the assessment tool being utilized is of the correct taxonomy as indicated by the SLO.

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

- Result: 100%/70% - CMGT 332

SLO #11: Apply basic surveying techniques for construction layout and control. One of two direct assessments 'over-achieved' the stated performance criteria:

- Result: 100%/70% - CMGT 335

SLO #17: Understand the legal implications of contract, common, and regulatory law to manage a construction project. One of two direct assessments 'over-achieved' the stated performance criteria:

- Result: 100%/75% - CMGT 462

SLO #18: Understand the basic principles of sustainable construction.

- Result: 100%/70% - CMGT 235

Executive Summary – 10 of 20 SLO's failed to meet the stated performance criteria on their direct assessments. And additional 2 of 20 SLO's over-achieved the stated performance criteria (attained 100% compliance). The 40% success rate clearly states the need for continuous improvement.

Indirect Assessment:

The Construction Management Department uses three newly created surveys as the mean for indirect assessment of the Student Learning Outcomes. They are: Senior Exit Survey, Alumni Survey, and Industry Survey. The results of the surveys will be address under "Survey Assessments" below.

Degree Program Outcomes (DPO's) – Appendix B

The Construction Management Department has created Degree Program Outcomes, **Appendix B.** The context of these DPO's can be found within the Strategic Plan as outlined in the *QIP.* The purpose of the DPO's is to evaluate the department's performance in achieving its strategic mission and goals. Each Degree Program Outcome has minimum performance criteria as established in the Strategic Plan.

Assessment of DPO's – Appendix F

The summary data from the AY2016-2017 is presented in DPO Scorecard, **Appendix F**. This scorecard lists the DPO, the DPO description, the assessment tool, the performance criteria, and finally the assessment result.

The department performed a total of 21 assessments in relation to the 24 Degree Program Objectives. 15 of these assessments met their stated performance criteria.

DPO's Needing Improvement

DPO #1.2: Alumni Feedback on the curriculum shall be sought and evaluated.

- Result: Due to a miscommunication with the University's Institutional Research department, the newly created *Alumni Feedback Survey* was not administered during the summer of 2017 as planned.

DPO #1.3: Industry Feedback on the curriculum shall be sought and evaluated.

- Result: Due to a miscommunication with the University's Institutional Research Department, the newly created *Alumni Feedback Survey* was not administered during the summer of 2017 as planned.
- Result: Due to a miscommunication with the University's Institutional Research Department, the newly created *Employer Feedback Survey* was not administered during the summer of 2017 as planned.

DPO #2.1: Parity with respect to Program funding within the college will be maintained.

- Result: Funding in $/FTES per Department was unequal.

DPO #2.3: Parity with respect to student/faculty ratios (SFR) within the college will be maintained.

- Result: Average SFR per Department was unequal.

DPO #4.2: Each full time Tenure faculty member will annually disseminate newly-acquired professional information to all other full time faculty members.

- Result: There is no documented evidence of full time tenured faculty disseminating newly acquired professional information to other faculty.

DPO #6.1: Program graduates will be able to satisfy ACCE Student Learning Outcomes.

- Result: See **Direct Assessment of Student Learning Outcomes** above

Executive Summary – 3 of DPO's were not applicable as there were no new tenure track hired. 6 of 21 DPO's failed to meet the stated performance criteria. Failure on 2 DPO's were a result of missing survey assessments. Failure on 2 different DPO's are directly related to faculty versus students ratios and funding opportunities from the College, which this department has no control over. The 81% success rate indicates the need for some minor improvements.

Indirect Survey Assessments

The Construction Management Department has three indirect survey assessment tools. While, each indirect assessment has its own informational feedback objective, they share the same set of questions with regards to:

- Level of perceived student preparedness for each SLO upon graduation.
- Level of perceived value for each CMGT course offering.

Senior Exit Survey – Appendix G

The newly recrafted Senior Exit Survey provides some key measures for the department to work from. This survey received 60 responses out of 63 graduates, or a 95% success rate.

Student Success outside the Classroom:

- Internships: 72% of students reported that they have had two or more internships.
- Student Clubs: 66% of students reported that they were involved in some form of student club, outside normally curriculum programming.
- ASC Competition: 44% of student reported being involved with the student competition.
- Community Service Projects: 46% of students reported being involved with one or more community service project.
- Job Offers: 91.7% of students reported receiving one or more job offers.

Student's Perceived Achievement of SLO Knowledge (using a scale of 1-5, 1 = Strongly Disagree and 5 = Strongly Agree):

- Score of 3 or lower: SLO's – none
- Score of 4: SLO's - 1, 2, 14, 15, 18, 19, 20.
- Score of 5: SLO's - All others

Students Perceived Value of CMGT Required Coursework (using a scale of 1-5, 1 = Not Valuable at All and 5 = Highly Valuable):

- Score of 2 or lower: None
- Score of 3: 2 classes
- Score of 4: 6 classes
- Score of 5: 12 classes

Students Perceived Effectiveness of Faculty Members (using a scale of 1-5, 1 = Not at all prepared and 5 = Very much prepared):

- Score of 2 or lower: 1 faculty
- Score of 3: 2 faculty
- Score of 4: 1 faculty
- Score of 5: 6 faculty

Students Listing of Common Program Strengths:

- The recruiting / job opportunities program
- Industry related experiences outside the classroom: clubs/competitions/community service projects.

Student Listing of Common Program Weaknesses:

- Too many part-time temporary faculty not qualified to teach the course material.
- Need for better, or updated, or industry current tenured faculty.

Alumni Survey – Appendix H)

Due to a miscommunication with the University's Institutional Research Department, the newly created Alumni Survey was not administered during the summer of 2017 as planned.

Employer Survey – Appendix I

Due to a miscommunication with the University's Institutional Research Department, the newly created Employer Survey was not administered during the summer of 2017 as planned.

ACCE Accreditation Feedback

The Construction Management Department submitted its mandatory 1st Year Progress Report on November 1, 2016. After the ACCE mid-year meeting, the department received a response letter dated March 13, 2017 with feedback on our 1st Year Progress Report.
The only comments were:

"The report as submitted was accepted by the Council. Actions taken by the institution on correction or elimination of Weakness and Concerns cited in the Fall 2015 Visiting Team Report were approved".

"The Council appreciated the work accomplished to resolve the Weakness and Concerns and looks forward to learning of continued progress in the second year progress report. The safety plan assignment provided for CMGT 360 is confusing. On page 1, the requirements are company based, while on page 2, they are project based, but no project is specified. Please clarify in the second year progress report."

Assessment Action Plan

Student Learning Outcomes (SLO's) – Action Plan

Direct Embedded Assessment of SLO's:

For each embedded direct assessment of a Student Learning Outcome that did not meet the stated performance criteria, a plan of action has been created. The plan of actions maybe be one of the following scenarios:

A. A specific plan has been developed by those faculty member(s) continuing to teach this course.
B. The direct assessment has been reassigned to another CMGT course as a result of the revised I-R-DA Assessment Map **Appendix A.**
C. A different faculty member has been appointed to teach the course. They will be performing direct assessments this semester with their own content as it relates to the SLO(s).
D. For any direct assessment not meeting the stated performance criteria, and that performance criteria exceeded the department minimum standard, then the stated performance criteria has been reset to the department minimum standard of 70/70 (70% will achieve a score of 70%).

Individual **SLO's Direct Assessment Improvement Plan**

SLO 3: Create a construction project safety plan.

- CMGT 360: **Scenario C and D**. This particular SLO action plan has been submitted to ACCE as part of the 2nd year progress report. An entirely new assignment(s) is being created to include discussion on: Cal OSHA requirements, construction safety statics, purpose and structure of a project safety plan, safety office responsibilities, employee safety responsibilities, drug free workplace legislation. Student assessment will include: creating a project specific safety plan using CD's from a prior course (CMGT 210), by customizing a company standard safety plan, creating a JHA, tool box meeting(s), hazardous communications binder, jobsite utilization plan with an emphasis on safety items.

SLO 5: Create construction project schedules.

- CMGT 457: **Scenario A**. The instructor's specific plan is to add one more in-class lab workday to this deliverable to ensure that students understand the project, the assignment, and have adequate time to complete the work.

SLO 6: Analyze professional decisions based on ethical principles.

- CMGT 450: **Scenario C**. The prior faculty member who was responsible for the missed performance criteria data will be providing the new instructor with the discussion and assessment content. Minor changes will be made to the assessment to alter it from an in class exam to a take home assignment. This should provide the students the actual time they need to do a proper analysis.

SLO #7: Analyze construction documents for planning and management of construction processes.

- CMGT 360: **Scenario B and D**. The direct assessment removed from this course due to I-R-DA remapping.
- CMGT 457: **Scenario A**. The instructor's specific plan is to provide create a new assignment for the assessment tool, in lieu of using an exam. This will provide the proper amount of time needed to analyze a situation and apply their topical content subject matter knowledge.

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

- CMGT 335: **Scenario C.** During AY 2016-2017 a new faculty member taught this course. For AY 2017-2018 the original long term fully tenured faculty member is again teaching this course. Direct assessment will be performed and analyzed Fall 2017.

SLO #10: *Apply electronic-based technology to manage the construction process.*

- CMGT 110: **Scenario B**. The direct assessment removed from this course due to I-R-DA remapping.
- CMGT 210: **Scenario B**. The direct assessment removed from this course due to I-R-DA remapping.
- CMGT 457: **Scenario B**. The direct assessment moved to this course due to I-R-DA remapping. This will be assessed and evaluated Fall 2017.

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

- CMGT 360: **Scenario C and D**. The new instructors plan is to rewrite and combine the two directs assessments into one. Further, there will now be a dedicate lecture focusing on the different types of project delivery systems as well as highlighting the roles and responsibilities of each party within each delivery system. The various forms of contracts will be reviewed and scenarios provided to understand the reasons for using certain contract types, depending on the project delivery system used

SLO #13: Understand construction risk management.

- CMGT 460: **Scenario A**. The Instructor's specific plan is to modify course content and exam methodology to meet ACCE taxonomy standards.

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

- CMGT 462: **Scenario C and D.** During AY 2016-2017 a new faculty member taught this course. For AY 2017-2018 the original long term fully tenured faculty member is again teaching this course. Direct assessment will be performed and analyzed Fall 2017.

SLO #19: Understand the basic principles of structural behavior.

- CMGT 345: **Scenario C and D**. The prior instructors plan was to provide more out of class help for students and modify course content to provide for more instruction on this topic. The new instructor is following this action plan.

False Positives – The following SLO's achieved 100% of the stated performance criteria. The ACCE standards committee classifies these as false positives. The committees believes that "best practices" dictate further investigation into the rigor of the content being taught, the rigor of the direct assessment, or the manner in which the direct assessment is being administered.

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

- CMGT 332: **Scenario A**. The Instructor's believes that the attainment of 100% passing is the goal of performance criteria in a group presentation setting. The instructor will be encouraged to raise the stated performance criteria and be provided an education that individuals can not be graded as groups for the purposes of individual assessment per ACCE standards.

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

- CMGT 335: **Scenario C.** During AY 2016-2017 a new faculty member taught this course. For AY 2017-2018 the original long term fully tenured faculty member is again teaching this course. Direct assessment will be performed and analyzed Fall 2017.

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

- CMGT 462: **Scenario C.** During AY 2016-2017 a new faculty member taught this course. For AY 2017-2018 the original long term tenured faculty member is again teaching this course. Direct assessment will be performed and analyzed Fall 2017.

SLO #18: Understand the basic principles of sustainable construction.

- CMGT 235: **Scenario A:** The Instructor's specific plan is to modify the assessment to make it more challenging.

Executive Summary – Challenges to meet SLO stated performance criteria will continue to occur for the foreseeable future as temporary faculty cycle in and out of the Department, along with existing faculty whose work assignments change semester to semester. This provides for a lack of continuity that restarts the assessment and evaluation period, and interferes with the cycle of continuous improvement.

Degree Program Outcomes (DPO's) – Action Plan

The Department has defined DPO's within the Strategic Plan as outlined in the *QIP.* For assessing each DPO, a minimum performance criteria was established based upon the wording within the Strategic Plan.

Assessment of DPO's

For each of the DPO's that did not meet the stated performance criteria, a specific action plan has been created as listed below.

DPO's Improvement Plan

DPO #1.2: Alumni Feedback on the curriculum shall be sought and evaluated.

- The Department of Institutional Research has confirmed the inclusion of the ***Alumni Feedback Survey*** in its system and it will be administered in Spring 2018.

DPO #1.3: Industry Feedback on the curriculum shall be sought and evaluated.

- The Department of Institutional Research has confirmed the inclusion of the ***Employer Feedback Survey*** in its system and it will be administered in Spring 2018.
- The Department's IAC Curriculum Committee will begin to review of two courses (CMGT 110 and CMGT 332) this academic year with the goal of curriculum and content feedback by April 2018. The plan is to continue with reviewing 2 or more, courses per year.

DPO #2.1: Parity with respect to Program funding within the college will be maintained.

- The Department has no control over program funding. There is no action plan.

DPO #2.3: Parity with respect to student/faculty ratios (SFR) within the college will be maintained.

- The Department has no control over budget, with dictates faculty hiring, which determines SFR. There is no action plan.

DPO #4.2: Each full time Tenure faculty member will annually disseminate newly-acquired professional information to all other full time faculty members.

- The Department chair will be responsible to ensure that each faculty meeting begins with one or more faculty members disseminating newly acquired professional information throughout the academic year.

DPO #6.1: Program graduates will be able to satisfy ACCE Student Learning Outcomes.

- See III. A. 1 above

Executive Summary – With minor adjustments to data collecting system for the Degree Program Objectives, four of the six remaining DPO's will meet the stated performance criteria.

Survey Assessments

For each of the DPO's that did not meet the stated performance criteria, a specific action plan has been created as listed below.

Senior Exit Survey

Using the rating system of 1-5, and a score of 3 or below indicates the need for improvement, the survey indicates three area's receiving 3/5 in the scoring

- *Preparedness of SLO's:* The Department believes the continuous improvement efforts outlined in the *QIP* and this report will lead to higher scores in the next survey. Action plans are in place that should provide improvement in this area.
- *Value of Coursework:* CMGT 101 has been assigned to a new faculty member as of Spring 2017. It will be a significant number of years before these students take the

Senior Exit Survey. It is the Departments expectation that this class will continue to rate poorly for the foreseeable future. CMGT 345 is on its third faculty member teaching this class in the last three semesters. Provided some stability can be brought to this course, scores will improve.

- *Value of Teaching Effectiveness:* The Department will continue to support those faculty receiving low effectiveness scores. Two of these faculty are in the Faculty Early Retirement Program (FERP) and have limited remaining time on campus.

Alumni Survey

- The Department of Institutional Research has confirmed the inclusion of our ***Alumni Feedback Survey*** in its system and it will be administered in late Spring 2018.

Employer Survey

- The Department of Institutional Research has confirmed the inclusion of our ***Employer Feedback Survey*** in its system and it will be administered in late Spring 2018.

ACCE Accreditation Feedback

- Feedback from the 2nd Year Progress Report will be available by March 2018. At that time the comments will be analyzed and a plan of action created.

The primary purpose of the QIP is to serve as a guide to the Department faculty for pursuing continuous program improvement. As such, planned actions may change yearly or, in some cases, continue over multiple years, depending on annual assessment findings, faculty response to those findings, and available resources for enacting change.

End of Final Assessment Report.

Appendix Documents

Appendix A: Student Learning Outcomes

Appendix B: Degree Program Objectives

Appendix C: Degree Program Required Course Offerings

Appendix D: Revised I-R-DA Map

Appendix E: SLO-CLO Scorecard

Appendix F: DPO Scorecard

Appendix G: Senior Exit Survey - Results

Appendix H: Alumni Survey - Survey only

Appendix I: Employer Survey - Survey only

Appendix A
Student Learning Outcomes

Student Learning Outcomes

As of Fall 2015, there are 20 Student Learning Outcomes dictated by the ACCE, and adopted and implemented by the Department of Construction Management.

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 B
Degree Program Objectives

DPO 1.1 ACCE accreditation shall be maintained.

DPO 1.2 Alumni and Student Feedback on the curriculum shall be sought and evaluated.

DPO 1.3 Industry Feedback on the curriculum shall be sought and evaluated.

DPO 2.1 Parity with respect to Program funding within the college will be maintained.

DPO 2.2 Parity with respect to faculty compensation within the college will be maintained.

DPO 2.3 Parity with respect to student/faculty ratios (SFR) within the college will be maintained.

DPO 2.4 Outside funding will be secured equal to or exceeding 10% of institutional college funding received.

DPO 3.1 All new Tenure Track faculty will have a minimum 5 years of industry-based construction management experience in the USA.

DPO 3.2 All new Tenure Track faculty will possess a minimum of a Master's Degree in Construction Management, or will obtain a degree within three years of hire.

DPO 3.3 All new Tenure Track faculty should have significant and successful prior teaching experience at the college or university level.

DPO 3.4 A part time / temporary faculty application pool containing a minimum of 10 qualified applicants will be maintained.

DPO 4.1 Each full time tenured faculty member will engage in a minimum of one significant professional experience every academic year.

DPO 4.2 Each full time tenured faculty member will annually disseminate newly-acquired professional information to all other full time faculty members.

DPO 4.3 Each full time tenured faculty member will be an active member of at least on local, state, or national professional organization related to the field of construction education and/or management.

DPO 4.4 Funds will be made available, upon request or by application, for faculty "updating" experience(s) at a minimum of $1,000 per full time faculty member each academic year.

DPO 5.1 At least one active student club/organization will be maintained which organizes at least four group experience for Program majors every year.

DPO 5.2 Course work will incorporate group or team experiences when appropriate.

DPO 5.3 At least three teams of students will be sent to the ASC regional competition annually.

DPO 6.1 Program graduates will be able to satisfy ACCE Student Learning Outcomes.

DPO 6.2 The majority of Program seniors will indicate that their expectations regarding curriculum rigor were met or exceeded.

DPO 6.3 A minimum of 90% of Program seniors will receive employment offers as entry level managers from one or more construction companies before or upon graduation.

DPO 7.1 A minimum of two articles / press-release related to the Program, its faculty, and / or its students will be published each year.

DPO 7.2 A program website will be maintained to meet University and ACCE requirements.

DPO 7.3 The Program will be represented by faculty at the regional and national meetings of ACCE and ASC

Appendix C
Degree Program Required Course Offerings

CMGT 100	Concepts of Construction
CMGT 110	Construction Graphics
CMGT 135	Construction Materials and Systems
CMGT 210	Analysis of Construction Drawings and Specifications
CMGT 235	Electrical and Mechanical Systems
CMGT 330	Principles of Soil Mechanics and Foundations
CMGT 332	Construction Method Analysis
CMGT 335	Construction Equipment
CMGT 340	Principles of Statics
CMGT 345	Mechanics of Materials
CMGT 360	Construction Project Management
CMGT 440	Temporary Structures
CMGT 450	Construction (Building) Estimating
CMGT 455	Construction Cost Management
CMGT 457	Project Control and Scheduling
CMGT 458	Heavy Construction Estimating
CMGT 460	Legal Aspects of Construction

Student Learning Outcomes - Course Learning Outcomes
Introduce - Reinforce - Assessment Map AY 2017-2018

Course	Course Title	SLO 1 Write	SLO 2 Oral	SLO 3 Safety	SLO 4 Estim	SLO 5 Sched.	SLO 6 Ethics	SLO 7 Docs.	SLO 8 Methods	SLO 9 Team	SLO 10 IT	SLO 11 Survey	SLO 12 Deliver	SLO 13 Risk	SLO 14 Acct.	SLO 15 QA/QC	SLO 16 Control	SLO 17 Contract	SLO 18 Sustain.	SLO 19 Struct.	SLO 20 MEP
CMGT 100	*Concepts of Construction*	I		I		I	I			I			I	I	I		I	I			
CMGT 110	*Construction Graphics*							I			I										
CMGT 135	*Construction Materials and Systems*								I							I			I		
CMGT 210	*Analysis of Construction Drawings and Specifications*				I		I	I			R	I	R			I					I
CMGT 235	*Electrical and Mechanical Systems*																		**R/DA**		**DA**
CMGT 270	** Building Information Modeling*																				
CMGT 275	** Architectural History*																				
CMGT 330	*Principles of Soil Mechanics and Foundations*		I									**DA**				R					
CMGT 332	*Construction Method Analysis*		**DA**		R	R		R	**DA**	**DA**			R	I		R	R				R
CMGT 335	*Construction Equipment*			R					**DA**			**DA**									
CMGT 340	*Principles of Statics*																			I	
CMGT 345	*Mechanics of Materials*																			**DA**	
CMGT 352	** Electrical Construction Estimating*																				
CMGT 360	*Construction Project Management*	R	R	**DA**			R			R			**DA**	R				R			
CMGT 380	** Green Building Practices and LEED Certification*																				
CMGT 440	*Temporary Structures*																			R	
CMGT 450	*Construction (Building) Estimating*				**DA**		**DA**				R			R	R						
CMGT 455	*Construction Cost Management*	R													**DA**	**DA**	**DA**				
CMGT 457	*Project Control and Scheduling*					**DA**		**DA**			**DA**			R			R				
CMGT 458	*Heavy Construction Estimating*				**DA**				R		R	R		R	R						
CMGT 460	*Legal Aspects of Construction*	**DA**					**DA**							**DA**				**R**			
CMGT 462	*Construction Contracts*	R					R											**DA**			
	Exiting Senior Survey	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**
	Alumni Survey	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**
	IAC/Employers Survey	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**	**IA**

* = CMGT Elective Course I = Introduced R = Reinforced DA = Direct Assessment IA = Indirect Assessment

Upon graduation from an accredited ACCE 4-year program a graduate shall be able to:

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 D - Revised I-R-DA Map

Appendix E - SLO-CLO Scorecard

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

8/23/2017

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal 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.	Written Paper	75%/70%	86%/70%	Over	Yes
#2	Create oral presentations appropriate to the construction discipline.	CMG 332, Construction Methods Analysis	#1	Have created several oral presentations to demonstrate their knowledge of construction methods analysis.	Presentation	70%/70%	100%/70%	Over	Yes
#3	Create a construction project safety plan.	CMGT 360, Construction Project Management	#2	Create a project specific safety plan detailing project specific hazards and remediation.	Safety Plan Assignment	75%/80%	60%/80%	Over	No
#4	Create construction project cost estimates.	CMGT 450, Constrution (Building) Estimating	#6	Create a preliminary estimate consisting of direct costs, indirect costs and margin.	Lab 7	75%/70%	86%/70%	Over	Yes
#4	Create construction project cost estimates.	CMGT 450, Constrution (Building) Estimating	#6	Create a preliminary estimate consisting of direct costs, indirect costs and margin.	Lab 8	75%/70%	84%/70%	Over	Yes
#4	Create construction project cost estimates.	CMGT 458, Heavy Construction Estimating	#11	Be able to create an Earthwork Cost Estimate.	Activity 8	70%/70%	80%/70%	Over	Yes
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#1	Analyze project control documents (including narratives) and know how they fit into the construction process.	Lab 4	70%/70%	80%/70%	Over	Yes
#5	Create construction project schedules.	CMGT 457, Project Control and Scheduling	#1	Analyze project control documents (including narratives) and know how they fit into the construction process.	Lab 6	70%/70%	67%/70%	(Under)	No
#6	Analyze professional decisions based on ethical principles.	CMGT 450, Constrution (Building) Estimating	#7	Analyze various ethical dilemmas and potential options to reach an ethical decision as it applies to construction estimating.	Final Exam	75%/70%	34%/70%	(Under)	No
#6	Analyze professional decisions based on ethical principles.	CMGT 460, Legal Aspects	#2	Be able to analyze fact patterns, involving the construction profession, based upon ethical principles.	Written Paper	70%/70%	80%/70%	Over	Yes

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal Met
#7	Analyze construction documents for planning and management of construction processes.	CMGT 360, Construction Project Management	#5	Write scopes of work, contracts, Notices to Proceed, Change Orders, Request for Information, Transmittals, develop Schedule of Values, and process Applications for Payment. Understand public/private procurement processes, documentation and public force accounts. Fully understand the concept of building commissioning.	Midterm Exam	75%/79%	53%/79%	(Under)	No
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#2. #4	Analyze project control documents (including narratives) and know how they fit into the construction process.	Lab 5B	70%/70%	80%/70%	Over	Yes
#7	Analyze construction documents for planning and management of construction processes.	CMGT 457, Project Control and Scheduling	#6, #7	Analyze how costs and schedules are related.	Final Exam	70%/70%	65%/70%	(Under)	No
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 332, Construction Methods Analysis	#2	Have analyzed construction documents and project models to plan and determine the means and methods to manage a construction project.	Quiz 2	70%/70%	83%/70%	Over	Yes
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 335, Construction Equipment	#2	Analyze equipment data and principles of soil mechanics to calculate the requirements of critical components of earthwork construction.	Quiz 1	70%/70%	47%/70%	(Under)	No
#8	Analyze methods, materials, and equipment used to construct projects.	CMGT 335, Construction Equipment	#2	Analyze equipment data and principles of soil mechanics to calculate the requirements of critical components of earthwork construction.	Quiz 2	70%/70%	78%/70%	Over	Yes
#9	Apply construction management skills as an effective member of a multi-disciplinary team.	CMGT 332, Construction Methods Analysis	#3	Have participated on a multi-disciplinary team to apply construction method analysis principles and concepts to a construction project.	Assignment 8	70%/70%	76%/70%	Over	Yes

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal Met
#10	Apply electronic-based technology to manage the construction process.	CMGT 110, Construction Graphics	#4	Demonstrate Skills in the basic Building and Manipulation of 3D Computer Models.	Activty 3	70%/70%	86%/70%	Over	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 110, Construction Graphics	#4	Demonstrate Skills in the basic Building and Manipulation of 3D Computer Models.	Activity 5	70%/70%	75%/70%	Over	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 110, Construction Graphics	#4	Demonstrate Skills in the basic Building and Manipulation of 3D Computer Models.	Activity 7	70%/70%	53%/70%	(Under)	No
#10	Apply electronic-based technology to manage the construction process.	CMGT 210, Analysis of Pland and Specifications	#5	Apply the ability to successfully use OnScreen Takeoff (OST), PlanGrid, and Bluebeam Revu software	Actvity 1	70%/70%	80%/70%	Over	Yes
#10	Apply electronic-based technology to manage the construction process.	CMGT 210, Analysis of Pland and Specifications	#5	Apply the ability to successfully use OnScreen Takeoff (OST), PlanGrid, and Bluebeam Revu software	Activity 5	70%/70%	67%/70%	(Under)	No
#10	Apply electronic-based technology to manage the construction process.	CMGT 210, Analysis of Pland and Specifications	#5	Apply the ability to successfully use OnScreen Takeoff (OST), PlanGrid, and Bluebeam Revu software	Activity 8	70%/70%	81%/70%	Over	Yes
#11	Apply basic surveying techniques for construction layout and control.	CMGT 330, Principles of Soil Mechanics and Foundations	#3	Have applied the basic surveying techniques for construction layout and control.	Quiz 7	70%/70%	74/70%	Over	Yes
#11	Apply basic surveying techniques for construction layout and control.	CMGT 335, Construction Equipment	#5	Analyze information on current GPS techniques, equipment, and software to determine best practices in project layout and control for mobile equipment.	Quiz 7	70%/70%	100%/70%	Over	Yes

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal 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	#3	Understand different methods for project delivery and the responsibilities of those involved in the design and construction process.	Midterm Exam	75%/79%	57%/79%	(Under)	No
#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	#7	Analyze 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.	Midterm Exam	75%/79%	57%/79%	(Under)	No
#13	Understand construction risk management.	CMGT 460, Legal Aspects	#3	Be able to recognize, in the construction management field, risks and understand the options available to manage these risks.	Exam	75%/70%	55%/70%	(Under)	No
#14	Understand construction accounting and cost control.	CMGT 455, Construction Cost Management	#4	Understand simple construction accounting operations and define the basic elements of construction cost control.	Lab 1	70%/70%	74%/70%	Over	Yes
#15	Understand construction quality assurance and control.	CMGT 455, Construction Cost Management	#6	Understand how the defining tenants of Quality Assurance and Quality Control are linked to the overall health of a construction project. Reinforce the relationship between good quality and project performance.	Quiz 1	70%/70%	83%/70%	Over	Yes
#16	Understand construction project control processes.	CMGT 455, Construction Cost Management	#2	Understand the basic elements of cost control and incorporate them into functioning control systems, illustrating their benefit to the successful management of construction projects.	Lab 4	70%/70%	86%/70%	Over	Yes

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal Met
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT 462, Construction Contracts	#4	Understand organization of and primary Federal and CA State Labor Laws.	Exam	80%/75%	46%/75%	(Under)	No
#17	Understand the legal implications of contract, common, and regulatory law to manage a construction project.	CMGT 462, Construction Contracts	#6	Understand and Analyze Federal, California State, and Private entity Project Contracts, Subcontracts, and Purchase Orders.	Exam	80%/75%	100%/75%	Over	Yes
#18	Understand the basic principles of sustainable construction.	CMGT 235, Electrical and Mechanical Systems	#1	Understand sustainable options for MEP scopes.	Skill Review #2	70%/70%	100%/70%	Over	Yes
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#3	Demonstrate the ability to construct shear force and bending moment diagrams for transversely loaded elements.	Quiz	75%/84%	35%/84%	(Under)	No
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#3	Demonstrate the ability to construct shear force and bending moment diagrams for transversely loaded elements.	Final Exam	75%/84%	45%/84%	(Under)	No
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#4	Demonstrate the ability to analyze and design steel and timber beams for shear and moment and to check beam deflections under given loading.	Quiz	75%/84%	12%/84%	(Under)	No
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#4	Demonstrate the ability to analyze and design steel and timber beams for shear and moment and to check beam deflections under given loading.	Final Exam	75%/84%	45%/84%	(Under)	No
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#6	Demonstrate the ability to analyze steel and timber columns	Quiz	75%/84%	34%/84%	(Under)	No
#19	Understand the basic principles of structural behavior.	CMGT 345, Mechanics of Materials	#6	Demonstrate the ability to analyze steel and timber columns	Final Exam	75%/84%	0%/84%	(Under)	No

Student Learning Outcomes (SLO)
Course Learning Outcomes (CLO)
AY 2016-2017 Assessment Results Scorecard

SLO	ACCE SLO Description	Course Number and Name	Course CLO #	Course CLO Description	Assessment Tool	Performance Criteria Stated *	Performance Criteria Reported	(Under) Over	Goal Met
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#3	Understand plumbing components using correct terminology and nomenclature.	Exam 1	70%/70%	85%/70%	Over	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#7	Understand HVAC components using correct terminology and nomenclature.	Exam 2	70%/70%	76%/70%	Over	Yes
#20	Understand the basic principles of mechanical, electrical and plumbing systems.	CMGT 235, Electrical and Mechanical Systems	#9	Understand the fundamental units of electricity, such as resistance, current, voltage, power, and energy, and solve problems using them.	Exam 3	70%/70%	78%/70%	Over	Yes

* 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.

Appendix F - DPO Scorecard

Degree Program Objectives

AY 2016-2017 Assessment Results Scorecard

9/5/2017

DPO #	DPO Description	Assessment Tool	Performance Criteria	Performance Result
1.1	ACCE accreditation shall be maintained.	Visiting Team Report	Yes / No	Yes
1.2	Student Feedback on the curriculum shall be sought and evaluated	Senior Survey	Done / Not Done	Done
	Alumni Feedback on the curriculum shall be sought and evaluated.	Alumni Survey	Done / Not Done	Not Done
1.3	Industry Feedback on the curriculum shall be sought and evaluated.	Employer Survey	Done / Not Done	Not Done
	Industry Feedback on the curriculum shall be sought and evaluated	IAC Curriculum Committee	Done / Not Done	Not Done
2.1	Parity with respect to Program funding within the college will be maintained.	Insights Transaction Report	Funding in $/FTES per Department	Unequal
2.2	Parity with respect to faculty compensation within the college will be maintained.	Insights Transaction Report	Faculty and Staff Funding in $/FTES per Department	Equal
2.3	Parity with respect to student/faculty ratios (SFR) within the college will be maintained.	Insights Transaction Report	Average Equal SFR per Department	Unequal
2.4	Outside funding will be secured equal to or exceeding 10% of institutional college funding received.	Internal Department Report	Percent of $$ Received by Industry over $$ Received from College	Achieved
3.1	All new Tenure Track faculty will have a minimum 5 years of industry-based construction management experience in the USA.	Resume's and / or CV's as applicable	Met / Not Met	Not Applicable
3.2	All new Tenure Track faculty will possess a minimum of a masters degree in construction management, or will obtain a degree within three years of hire.	Resume's and / or CV's as applicable	Met / Not Met	Not Applicable

Degree Program Objectives
AY 2016-2017 Assessment Results Scorecard

DPO #	DPO Description	Assessment Tool	Performance Criteria	Performance Result
3.3	All new Tenure Track faculty should have significant and successful prior teaching experience at the college or university level.	Resume's and / or CV's as applicable	Met / Not Met	Not Applicable
3.4	A part time / temporary faculty application pool containing a minimum of 10 qualified applicants will be maintained.	List of candidates names; qualifications per 3.1, 3.2, 3.3; PT or FT availability	Met / Not Met	Met
4.1	Each full time Tenure faculty member will engage in a minimum of one significant professional experience every academic year.	Report by all full time Tenure faculty	Met / Not Met	Met
4.2	Each full time Tenure faculty member will annually disseminate newly-acquired professional information to all other full time faculty members.	Report by all full time Tenure faculty	Met / Not Met	Not Met
4.3	Each full time Tenure faculty member will be an active member of at least one local, state, or national professional organization related to the field of construction education and/or management.	Report by all full time Tenure faculty	Met / Not Met	Met
4.4	Funds will be made available, upon request or by application, for faculty "updating" experience(s) at a minimum of $1,000 per full time faculty member each academic year.	Report of annual funds extended to faculty for "professional development"	Met / Not Met	Met
5.1	At least one active student club/organization will be maintained which organizes at least four group experience for Program majors every year.	Report by student club/organization leadership board	Met / Not Met	Met

Degree Program Objectives
AY 2016-2017 Assessment Results Scorecard

DPO #	DPO Description	Assessment Tool	Performance Criteria	Performance Result
5.2	Course work will incorporate group or team experiences when appropriate.	Report by faculty member using group work	Met / Not Met	Met
5.3	At least three teams of students will be sent to the ASC regional competition annually.	Report by ASC Competition Coordinator	Met / Not Met	Met
6.1	Program graduates will be able to satisfy ACCE Student Learning Outcomes.	SLO/CLO assessment results scorecard	70% will earn a score of 70% per assessment	Not Met
6.2	The majority of Program Seniors will indicate that their expectations regarding curriculum rigor were met or exceeded.	Question 8 of CMGT Senior Exit Survey and Questions 15, 19, 29 of the College of ECC Senior Exit Survey	51% is a majority Met / Not Met	Met
6.3	A minimum of 90% of Program Seniors will receive employment offers as entry level managers from one or more construction companies before or upon graduation.	Question #39 on Senior Exit Survey	Met / Not Met	Met
7.1	A minimum of two articles / press-release related to the Program, its faculty, and / or its students will be published each year.	Report by Public Relations and Website Committee	Met / Not Met	Met
7.2	A program website will be maintained to meet University and ACCE requirements.	Report by Public Relations and Website Committee	Met / Not Met	Met

Degree Program Objectives
AY 2016-2017 Assessment Results Scorecard

DPO #	DPO Description	Assessment Tool	Performance Criteria	Performance Result
7.3	The Program will be represented by faculty at the regional and national meetings of ACCE and ASC.	Report by each full time Tenure faculty engaged in ACCE and ASC	Met / Not Met	Met

Appendix G - Senior Exit Survey

College of ECC Questions

Educational Satisfaction		
No.	**At Chico State, how satisfied were you with the . . .**	**Average Rating**
1	Quality of teaching by faculty in your department	4.24
2	Quality of teaching by other faculty	3.83
3	Access to faculty in your department	4.41
4	Availability of courses in your department	4.21
5	Quality of courses in your department	4.17
6	Access to lab facilities and equipment	4.37
7	Quality of laboratories and equipment	4.16
8	Access to computer facilities	4.67
9	Quality of computer facilities	4.16
10	Academic advising from your major advisor	4.08
11	Academic advising from the Advising Office	3.62
12	Career information from your department	4.66
13	Availability of GE courses	3.57
14	Quality of GE courses	3.42
15	Overall quality of your education	4.25
16	Your overall experience at Chico State	4.49

Educational Outcomes		
No.	**Based on your educational experience here at Chico State, how well prepared are you to …**	**Average Rating**
17	Apply knowledge of math, science, engineering, or technology to solve problems	4.27
18	Design and conduct experiments	4.00
19	Analyze and interpret data	4.11
20	Design a component or system to meet desired needs	3.92
21	Function on a multidisciplinary team	4.40
22	Identify, formulate, and solve technical problems	4.19
23	Communicate technical matters in writing	4.13
24	Communicate technical matters orally	4.29
25	Understand & apply professional & ethical principles	4.41
26	Understand contemporary issues facing society	4.16
27	Use modern tools and technology	4.37
28	Enter the workplace*	4.20
29	Continue learning	4.38
30	I would recommend my major at CSU, Chico to others	4.87

NOTE: The balance of ECC questions 31-49 are not included in this report.

Department of Construction Management Questions

CMGT-Specific Survey Questionnaire

1	**How many companies have you interned with?**	**One**	**Two**	**Three**	**Four/more**	**Specialty (Subcontractor)**	
		41.50%	**30.20%**	**17.00%**	**11.30%**		
2	**If you have accepted a job, what sector of the Construction Industry will you be working in?**	**Commercial Building**	**Industrial**	**Heavy Civil**	**Residential**	**Specialty (Subcontractor)**	**Other**
		56.60%	**5.70%**	**18.90%**	**5.70%**	**13.20%**	

Primarily medical/hospital work and public works Core and Shell San Francisco
Electrical
Underground, grading, paving, earthwork
Ill be working for a commercial builder in San Francisco building residential homes
Public Commercial jobs Public works
Public Schools
General Contractor in the Bay area Custom Residential
Mixed- Use/Commercial
Still have not been placed but I am working for dome High-End Residential
Core and Shell
Neon Project Las Vegas
Probably more public than private jobs Commercial, maybe some healthcare/data.
Electrical Contractor Functioning as both GC & Sub Medical buildings
Highway Electrical
Tenant improvements and special projects
I will be working on state jail once I graduate Superintendent for commercial company
Structural Bridging
Tech Company
Core and Shell in San Francisco
Technical commercial building with DPR Construction.

3	**Where you involved in student activities or clubs?**	**Yes**	**No**				
		65.60%	**34.50%**				
4	**If yes, what activities or clubs were you involved in?**	**AGC**	**DBIA**	**MCAA**	**Sigma Lambda Chi**		

ASC
Chico State Bass Team
Chico state Rugby
ASC Volunteer, Alpha Phi
Women in Concrete and Construction
ASC Volunteer, Alpha Phi
Sports club
Lambda Chi Alpha
ASC
Tiny House
CAVE
ASC

CMGT-Specific Survey Questionnaire							
5	**Did you compete at the ASC Competition in Sparks, NV?**	**Yes**	**No**				
		43.60%	**56.40%**				
	2017 Design- Build Volunteer (2015), Assistant Volunteer Captain (2016), Volunteer Captain (2017) Electrical 2015 & 2016 Mechanical Determining Project Risk, 2016 & Mixed Use, 2017 Commercial team spring 2016 Mechanical team 4 years 2014/2015 Design Build Team 2017 Mixed Use Risk 2015/2016 DBIA2016 Commercial, Marine Heavy Civil 2015& 2016 risk 2014,2015,2016 Commercial Team Volunteer (Junior and Senior year) (2014, electrical), (2015,2016 heavy civil) Was on the heavy civil team the last two years. Marine, Commercial 2014/15 - Heavy Civil Alternate, 2016 Heavy Civil Team 2016, Design build 2016 and 2017 Concrete Solutions Mechanical team, 2015-2017 Commercial Concrete Solutions 2016/2017 Commercial						
7	**Did you participate in any community service projects sponsored by the Department of Construction Management**	**Yes**	**No**				
		45.50%	**54.50%**				
	Blitz Build 2015, MCAA community service projects Blitz Build Blitz build salvation army Durham - Veterans Memorial Hall Blitz build Blitz Build Chico Children's Museum Project Blitz build Blitz Build, Green Apple Day Durham Veterans Hall Re-Roof Blitz build Blitz build 2014 Patrick Ranch Blitz build Blitz Build 2014 AGC Crab feed blitz build before it was removed Blitz Build - Salvation Army 2014 Blitz Build, Boy Scouts Camp, Green Apple Day of Service Children's museum, cm golf tournament Green apple day of service Durham Veterans, Camp Lassen Camp Lessens, Durham memorial blitz build Tree Blitz, Camp Lassen, Caper Acres, Children's Museum Lassen Boy Scout Camp and Daycare Playground Rehab						
9	**How well do you believe that your degree in Construction Management has prepared you for your career in the industry?**	**Not at all prepared**	**A little prepared**	**Somewhat prepared**	**Quite a bit prepared**	**Very much prepared**	
				11.50%	**40.40%**	**48.10%**	
10	**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**	**Seldom Effective**	**Somewhat Effective**	**Usually Effective**	**Very Effective**	**N/A**
	Joel Arthur	5.5%	5.5%	10.9%	16.4%	29.1%	32.7%
	Alan Bond	1.9%	1.9%		5.6%	90.7%	
	Mike Borzage	7.5%	18.9%	37.7%	18.9%	17.0%	
	Lori Brown		1.8%	16.4%	38.2%	41.8%	
	Rich Holman			1.8%	12.7%	85.5%	
	William Kymmell	16.4%	10.9%	34.5%	23.6%	5.5%	9.1%
	Scott McCutcheon	1.8%		14.5%	49.1%	34.5%	
	John Schwarz			3.6%		90.9%	5.5%
	Chris Souder			1.8%	9.1%	87.3%	1.8%
	Rovanne Younger	20.0%	10.9%	14.5%	5.5%	5.5%	43.6%

CMGT-Specific Survey Questionnaire							
11	**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**	**Seldom Valuable**	**Somewhat Valuable**	**Valuable**	**Highly Valuable**	**N/A**
	CMGT 100		3.6%	18.2%	27.3%	36.4%	14.5%
	CMGT 101	5.5%	3.6%	20.0%	18.2%	16.4%	36.4%
	CMGT 110	9.1%	12.7%	23.6%	27.3%	16.4%	10.9%
	CMGT 135			3.6%	40.0%	50.9%	5.5%
	CMGT 210	1.8%	1.8%	5.5%	18.2%	72.7%	
	CMGT 235	1.8%	12.7%	16.4%	38.2%	27.3%	3.6%
	CMGT 270	3.6%	1.8%	7.3%	9.1%	16.4%	61.8%
	CMGT 275	5.5%	10.9%	3.6%	7.3%	10.9%	61.8%
	CMGT 330	1.9%	16.7%	24.1%	31.5%	24.1%	1.9%
	CMGT 332	14.5%	7.3%	23.6%	30.9%	23.6%	
	CMGT 335		1.9%	9.3%	35.2%	53.7%	
	CMGT 340	5.5%	5.5%	25.5%	34.5%	25.5%	3.6%
	CMGT 345	7.3%	9.1%	27.3%	27.3%	25.5%	3.6%
	CMGT 360		5.6%	18.5%	29.6%	42.6%	3.7%
	CMGT 380			3.7%	13.0%	27.8%	55.5%
	CMGT 440	1.8%		20.0%	34.5%	41.8%	1.8%
	CMGT 450	1.8%		1.8%	10.9%	85.5%	
	CMGT 455	1.8%		10.9%	38.2%	45.5%	3.6%
	CMGT 457			1.8%	16.4%	78.2%	3.6%
	CMGT 458		1.8%	9.1%	30.9%	52.7%	5.5%
	CMGT 460			1.8%	10.9%	85.5%	1.8%
	CMGT 462	3.6%	5.5%	27.3%	20.0%	23.6%	20.0%

CMGT-Specific Survey Questionnaire							
12	**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**	**Strongly Disagree**	**Disagree**	**Neutral Valuable**	**Agree**	**Strongly Agree**	**N/A**
	1. Create written communications appropriate to the construction discipline.			1.9%	51.9%	44.4%	1.9%
	2. Create oral presentations appropriate to the construction discipline.			1.9%	50.0%	46.3%	1.9%
	3. Create a construction project safety plan.	1.9%	1.9%	13.0%	31.5%	50.0%	1.9%
	4. Create construction project cost estimates.			3.7%	40.7%	53.7%	1.9%
	5. Create construction project schedules.			3.7%	33.3%	59.3%	3.7%
	6. Analyze professional decisions based on ethical principles.				40.7%	57.4%	1.9%
	7. Analyze construction documents for planning management of construction processes.				40.7%	57.4%	1.9%
	8. Analyze methods, materials, and equipment used to construct projects.			1.9%	41.5%	54.7%	1.9%
	9. Apply construction management skills as a member of a multidisciplinary team.			1.9%	38.9%	57.4%	1.9%
	10. Apply electronic based technology to manage the construction process.		1.9%	3.7%	37.0%	55.6%	1.9%
	11. Apply basic surveying techniques for construction layout and control.	3.7%	3.7%	16.7%	29.6%	44.4%	1.9%
	12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.			1.9%	44.4%	51.9%	1.9%
	13. Understand construction risk management.			7.4%	42.6%	50.0%	
	14. Understand construction accounting and cost control.			7.4%	46.3%	46.3%	
	15. Understand construction quality assurance and control.	1.9%		5.6%	51.9%	40.7%	
	16. Understand construction project control processes.			1.9%	46.3%	51.9%	
	17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.				44.4%	55.6%	
	18. Understand the basic principles of sustainable construction.		1.9%	9.3%	44.4%	44.4%	
	19. Understand the basic principles of structural behavior.	1.9%	1.9%	1.9%	48.1%	46.3%	
	20. Understand the basic principles of mechanical, electrical and piping systems.	1.9%	1.9%	9.3%	44.4%	42.6%	

CMGT-Specific Survey Questionnaire		
13	**Please list the strengths of the Construction Management Program**	

Social skills

the resources available make being successful as a CM major. I have never heard of other majors having such easy access to industry people to

Estimating, Contracts, Equipment

one strength includes company recruiting on campus every semester. another is the computer lab with free printing for CM students.

Alan Bond, Rich Holman, John Swartz, and Chris Souder.

The CM department is very helpful and informative.

CM Print Lab is great.

The CM department makes it VERY easy to get a job/internship. Interviews with pretty much any major contractor are ava

Lots of case studies used, professors always relate class work to real life scenarios, etc. On Campus Recruiting; Alan Bond Teaching CMGT 210

helpful -set you up to succeed Prepares for job

Great teaching from very knowledgeable educators.

Access to variable resources: - Presessions/interviews, Staff always willing to help, staff very personable and knowledgeable

Work with students to get classes, networking/industry involvement, internship availability Estimating, Scheduling, Construction Law

Companies coming to campus to recruit. Great teachers, good programs.

Opportunities for internships/jobs after college SOME of the professors/lecturers are HIGHLY effective and teach content that will prepare students for careers in the industry very well the department is constantly trying to improve classes and content to

Alan bond teaching 450, Schwarz teaching 460

Overall a Great program. Teachers are very friendly and want to get to know their students. The students also become friends and make connections for the future.

The teachers can provide the students with past experiences. The Construction Management program here at Chico is very good at getting students involved in many ways. They are great at getting the students many opportunities to interact with industry which ultimately leads to internships and jobs.

For the most part, the instructors make the program what it is. They are the backbone of the department and I think they play the most vital role.

Knowledgeable e faculty and incredibly helpful staff make this major one of the best around. I've never been turned down help in any subject and the staff care about the students. You aren't just another number. Material set forth in the classroom has real-world application.

Industry support. A few great classes 450, 460, 135, 100, 210, 360. Clubs competition, advising

Prepares you for real world work and only tells you what you need to know. The program is geared to help us get a job and start working

Helps find jobs. Learn concepts that other majors would not touch on. Plenty of helpful faculty. Everything applies to work, nit much fluff.

Volunteer work available. Additional learning available.

I believe the clubs and extracurricular groups such as ASC are some of the strongest points of the program.

They make is very easy for students to get internships and jobs

The CM program was very helpful in providing the knowledge to be successful in the construction industry. I feel it prepares you and teaches you about the many aspects of the construction management process that will be needed to run a successful project.

The strengths in the construction management program at Chico State is the experience that each professor brings to the table. They come from a variety of construction back grounds that uniquely help us understand the work better.

Great program, I was encouraged early on by professors to begin going to pre-sessions and interviewing with companies. Blitz Build was great to have as a first hands on management job, ASC was great for that as well. Classes were good overall.

Plenty to offer students in the way of resources. Its nice having such a well supported program. Some good faculty that want students to learn and care to push students to try harder.

Alan Bond, John Schwarz, Rich Holman, and Chris Souder. All classes conducted by these individuals I presented me with knowledge and tools I use every day at work as a project manager and estimator.

The CM program has a good sense of preparing students for actual field experience by utilizing industry connections to help students acquire internships.

The CM program has a very helpful and knowledgeable faculty. There are many resources made readily available to students. The program is very effective at providing students with opportunities to interview with companies and get internships.

Chris Souder, Alan Bond, Rich Holman, Lori Brown and Mandy are the backbone of this department and made my experience here truly enjoyable.

The CM Department has a multitude of opportunities for students to get involved in the industry and to volunteer locally. In addition the integration with companies visiting and holding info sessions/ interviews is extremely helpful.

On campus recruiting, lots of opportunities for community service, involved community

The program is really student oriented. We as students get a lot of help.

The availability of most of the staff as been amazing. The activities, certifications, and pre- sessions the department provides goes above and beyond.

Job placement.

Department is a big group of friends. Spend time with classmates outside of class. Industry involvement is strong. ASC is very valuable if you take advantage of it. Teachers are easy to talk to and accessible. Most of important information in a few class

CMGT-Specific Survey Questionnaire	
14	**Please list any areas needing improvement in the Construction Management Program.**
	For internal use only

CMGT-Specific Survey Questionnaire	
15	**Please share any other comments/feedback you have regarding the Construction Management program:**

Great program.

I had a great experience in CM and will definitely recommend this program and fellow alumni to co-workers and friends.

Internship needs to be made mandatory for graduation I believe it is crucial for actually understanding how the industry works as you will learn more in this summer than most of the time you are in school.

It will be more efficient to learn Scheduling and Estimating Class at the beginning of the Construction Management Program year. So we could more easily understand the system on construction management. And for ASC competition it is more efficient to have

Overall I am happy with the program. Some of the classes seem irrelevant as well as some of the staff. I cannot emphasize enough how terrible XXX was/is/always will be.

Great program. Professors and students are extremely friendly and helpful. I would definitely recommend this program to anyone.

Fire XXXXX

We need better faculty and reduce switching professor from course to course throughout the semesters. We need specialized professor for each course.

I have thoroughly enjoyed my experience here and feel well prepared for the real world.

I credit everything I have learned to the CM department at Chico and believe it is the most rewarding major to be able to graduate with

Thank you so much to all the faculty for making this one of the best decisions of my life. You all have been there to support us and guide us. You are all just as much a part of my graduating as I am and I couldn't have done it without you. If there is any

XXXX is the GOAT

Very good program and I'm glad I went through it

Overall I think the program is far above and beyond many other programs in California and in the country, but if students don't get involved in extracurricular groups and take advantage of the internships they won't get nearly as much benefit from the program

Too much bureaucracy.

I love this program and believe it made my college education worth every penny.

Love it! I will always represent Chico State CM because I know it has prepared me well to begin my career as a builder. Thank you!!!

XXXX is the best. Her value to the department is incomparable. Throughout the years she has helped everyone so much. Anytime there is a problem that I didn't know who to turn to, she was able to either solve the issue or direct me to someone.

Thank you!

I really appreciate all the help I received from this program.

Put XXXX back in 450.

Choosing to switch from Business to CM at CSU Chico was the best decision I have ever made in my life. I had an overall incredible experience in the CSU Chico Construction Management program and I am graduation with a great job lined up because of it.

Appendix H - Alumni Survey

CALIFORNIA STATE UNIVERSITY, CHICO

1 ○ 4
2 ○ 5
3 ○ 6
4 ○ or more

4. How many years have you worked with your current title and job description?

Q4

1 ○ 0
2 ○ 1
3 ○ 2
4 ○ 3
5 ○ 4
6 ○ or more

5. How many promotions have you received since graduation?

Q5

1 ○ 0
2 ○ 1
3 ○ 2
4 ○ 3
5 ○ 4
6 ○ or more

6. How many pay raises have you received since graduation?

Q6

1 ○ 0
2 ○ 1
3 ○ 2
4 ○ 3
5 ○ 4
6 ○ or more

7. What is your current annual income?

Q7

1 ○ Less than $41K
2 ○ $41-60K
3 ○ $61-80K
4 ○ $81-100K
5 ○ More than $100K

8. Does your organization have a matching gift program for charitable donations by employees?

Q8

1 ○ Commercial Building
2 ○ Consulting
3 ○ Marine
4 ○ Residential
5 ○ Industrial
6 ○ Heavy-Civil
7 ○ Other (please specify)

Nested Question Group for Response [7] of question [Q8]

If 'Other,' please describe

Q8_Other

You Have 250 Characters Remaining.

9. Have you completed additional education and/or training (mark all that apply)?

Q9

√ = 1 ☐ Conferences Q9__1

√ = 1 ☐ Workshops Q9__2
√ = 1 ☐ Short Courses Q9__3
√ = 1 ☐ Graduate Studies Q9__4
√ = 1 ☐ Q9__5 Other (please specify)

Nested Question Group for Response [5] of question [Q9]

If 'Other,' please describe
Q9_Other
You Have 250 Characters Remaining.

10. How many professionally-related educational opportunities do you attend annually?
Q10
1 ○ None
2 ○ 1
3 ○ 2-3
4 ○ 4-5
5 ○ 6
6 ○ or more

11. Please indicate how many professionally-related and/or community groups you currently participate in?
Q11
1 ○ None
2 ○ 1
3 ○ 2-3
4 ○ 4-5
5 ○ 6
6 ○ or more

12. How often do you present information to upper management, clients (potential and current), investors?
Q12
1 ○ Daily
2 ○ Weekly
3 ○ Monthly
4 ○ Annually
5 ○ Seldom

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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) mandates by our accrediting body, the American Council for Construction Education (ACCE).

During the current school year, about how often have you done the following?		5 Strongly Agree	4 Agree	3 Neutral	2 Disagree	1 Strongly Disagree	9 Not Applicable
Q17	17. SLO #1: Create written communications appropriate to the construction discipline.	○	○	○	○	○	○
Q18	18. SLO #2: Create oral presentations appropriate to the construction discipline.	○	○	○	○	○	○
Q19	19. SLO #3: Create a construction project safety plan.	○	○	○	○	○	○
Q20	20. SLO #4: Create construction project cost estimates.	○	○	○	○	○	○
Q21	21. SLO #5: Create Construction project schedules	○	○	○	○	○	○
Q22	22. SLO #6: Analyze professional decisions based on ethical principles.	○	○	○	○	○	○

Q23

Q23	23. SLO #7: Analyze construction documents for planning management of construction processes.						
Q24	24. SLO #8: Analyze methods, materials, and equipment used to construction projects.						
Q25	25. SLO #9: Apply construction management skills as a member of a multidisciplinary team.						
Q26	26. SLO #10: Apply electronic-based technology to manage the construction process.						
Q27	27. SLO #11: Apply basic surveying techniques for construction layout and control.						
Q28	28. SLO #12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.						
Q29	29. SLO #13: Understand construction risk management.						
Q30	30. SLO #14: Understand construction accounting and cost control.						
Q31	31. SLO #15: Understand construction quality assurance and control.						
Q32	32. SLO #16: Understand construction project control processes.						
Q33	33. SLO #17: Understand the legal implications of contract, common, and regulatory law to manage a construction project.						
Q34	34. SLO #18: Understand the basic principles of sustainable construction.						
Q35	35. SLO #19: Understand the basic principles of structural behavior.						
Q36	36. SLO #20: Understand the basic principles of mechanical, electrical and piping systems.						

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Curriculum Content

Below are Construction Management specific subject areas that you took while enrolled in the CMGT program. Please rate the value of each the follow curriculum courses as it relates to the value of your educational experience:

		4 Highly Valuable	3 Valuable	2 Somewhat Valuable	1 Seldom Valuable	9 Not Valuable At All
Q37	37. CMGT 100: Concepts of Construction					
Q38	38. CMGT 101: Construction Management Career Prep					
Q39	39. CMGT 110: Construction Graphics					
Q40	40. CMGT 135: Construction Material and Systems					
Q41	41. CMGT 210: Analysis Construction Drawing					
Q42	42. CMGT 235: Electrical and Mechanical Systems.					
Q43	43. CMGT 270: Building Information Modeling					
Q44	44. CMGT 275: Architectural History					
Q45	45. CMGT 330: Principles of Soil Mechanics					
Q46	46. CMGT 332: Construction Method Analysis					
Q47	47. CMGT 335: Construction Equipment					
Q48	48. CMGT 340: Principles of Statics					
Q49	49. CMGT 345: Mechanics of Materials					
Q50	50. CMGT 360: Construction Project Management					
Q51	51. CMGT 380: Green Building Practices and LEEd Certification					
Q52	52. CMGT 440: Temporary Structures					
Q53	53. CMGT 450: Construction Estimating					
Q54	54. CMGT 455: Construction Cost Management					
Q55	55. CMGT 457: Project Control and Scheduling					
Q56						

Q56	56. CMGT 458: Heavy Construction Estimating					
Q57	57. CMGT 460: Legal Aspects of Construction					
Q58	58. CMGT 462: Construction of Contracts					

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Program Improvements

Please provide any additional comments that will help make this program better:

59. Please list the strengths of the Construction Management program (Fill in): Q59

You Have Characters Remaining.

60. Please list any areas needing improvement in the Construction Management program (Fill in): Q60

You Have Characters Remaining.

61. Please list any specific feedback you have on Construction Management curriculum (Fill in): Q61

You Have Characters Remaining.

62. Please share any other comments/feedback you have regarding the Construction Management program (Fill in): Q62

You Have Characters Remaining.

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From the faculty and staff of Construction Management and the College of Engineering, Computer Science and Construction Management, we sincerely thank you for taking the time to complete this survey!

Your responses will be kept confidential!

For Survey Content Questions,
contact Institutional Research: ir@csuchico.edu

CALIFORNIA STATE UNIVERSITY, CHICO

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California State University, Chico - Construction Management Employer's Survey

Informed Consent

To All Employers of CSU, Chico Construction Management Graduates:

The most vital measure of our academic program is the success of our graduates. Our records indicate that you supervise one or more graduates of our program. Please help us to assess the preparation provided by our CMGT program by completing the following survey. The responses that you provide will be combined with those from other employers solely to produce summary data. Individual responses will be treated as strictly confidential.

If you are not the appropriate person to complete this survey, please ask someone who is to provide us with this information. Multiple responses from one employer are acceptable, but only if the responses are from supervisors of different graduates – otherwise, please provide only one response. For situations involving multiple supervisors of the same graduate(s), please collaborate on a single response.

Please encourage your Chico State employees to keep us informed of their contact information with the Alumni Information Form, available at http://www.csuchico.edu/cm click on the Alumni and Friends tab.

We look forward to hearing from you. To assist with program accreditation, please return the survey as soon as possible.

Thank you from the faculty of Construction Management and the College of Engineering, Computer Science and Construction Management.

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Demographics Questions

1a. Please fill in the **organization's name:** Q1a

You Have 60 Characters Remaining.

1b. Please fill in the **organization's address:** Q1b
You Have Characters Remaining.

1c. Please fill in **your name:** Q1c
You Have 60 Characters Remaining.

1d. Please fill in **your position:** Q1d
You Have 60 Characters Remaining.

1e. Please fill in **your email:** Q1e
You Have 60 Characters Remaining.

2. What type of work does your company perform? (check all that apply) Q2

√ = 1	☐	Commercial Building	Q2__1
√ = 1	☐	Heavy-Civil	Q2__2
√ = 1	☐	Industrial	Q2__3
√ = 1	☐	Marine	Q2__4
√ = 1	☐	Specialty Contracting	Q2__5
√ = 1	☐	Residential	Q2__6
√ = 1	☐	Consulting	Q2__7
√ = 1	☐	Q2__8 Other (please describe below)	

Nested Question Group for Response [8] of question [Q2]

If 'Other,' please describe
Q2_Other
You Have 250 Characters Remaining.

3. Are you a CSU, Chico CMGT graduate?
Q3
1 ○ Yes
2 ○ No

4. Approximate number of CSUC CMGT graduates you supervise?
Q4
1 ○ 1-5
2 ○ 6-10
3 ○ 11-25
4 ○ 26-50
5 ○ More than 50

5. Does your organization have a rotation or other type of training from new CMGT graduates?
Q5
1 ○ Yes
2 ○ No

6. Does your organization provide support for continuing education of employees (including graduate studies)?
Q6
1 Yes
2 No

7. Does your organization encourage employees to seek a contractor's license?
Q7
1 Yes
2 No

8. Does your organization have a matching gift program for charitable donations by employees?
Q8
1 Yes
2 No

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Degree Questions

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 applications for each following:

9. Estimating: Q9
You Have 60 Characters Remaining.

10. Scheduling: Q10
You Have 60 Characters Remaining.

11. Project Management: Q11
You Have 60 Characters Remaining.

12. Modeling: Q12
You Have 60 Characters Remaining.

13. Paperless Workflows: Q13
You Have 60 Characters Remaining.

14. Punchlist Work: Q14
You Have 60 Characters Remaining.

15. Construction Drawing Management: Q15
You Have 60 Characters Remaining.

16. Other, please specify: Q16
You Have 60 Characters Remaining.

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Student Learning Outcomes

Our accreditation agency, The American Council for Construction Education, has established Student Learning Outcomes (SLO) that set out 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 the students you supervised based upon the following skill sets.

		5	4	3	2	1
	During the current school year, about how often have you done the following?	Very Prepared	Prepared	Neutral	Unprepared	Very Unprepared
Q17	17. SLO #1: Create written communications appropriate to the construction discipline.					
Q18	18. SLO #2: Create oral presentations appropriate to the construction discipline.					
Q19	19. SLO #3: Create a construction project safety plan.					
Q20	20. SLO #4: Create construction project cost estimates.					
Q21	21. SLO #5: Create Construction project schedules					
Q22	22. SLO #6: Analyze professional decisions based on ethical principles.					
Q23	23. SLO #7: Analyze construction documents for planning management of construction processes.					
Q24	24. SLO #8: Analyze methods, materials, and equipment used to construction projects.					
Q25	25. SLO #9: Apply construction management skills as a member of a multidisciplinary team.					
Q26	26. SLO #10: Apply electronic-based technology to manage the construction process.					
Q27	27. SLO #11: Apply basic surveying techniques for construction layout and control.					
Q28	28. SLO #12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.					
Q29	29. SLO #13: Understand construction risk management.					
Q30	30. SLO #14: Understand construction accounting and cost control.					
Q31	31. SLO #15: Understand construction quality assurance and control.					
Q32						

Q32	32. SLO #16: Understand construction project control processes.					
Q33	33. SLO #17: Understand the legal implications of contract, common, and regulatory law to manage a construction project.					
Q34	34. SLO #18: Understand the basic principles of sustainable construction.					
Q35	35. SLO #19: Understand the basic principles of structural behavior.					
Q36	36. SLO #20: Understand the basic principles of mechanical, electrical and piping systems.					

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Curriculum Content

Please rate the perceive value of each the following Construction Management courses with the understanding that you must assume the curriculum content based upon the title of the course:

During the current school year, about how often have you done the following?

		5 Highly Valuable	4 Valuable	3 Somewhat Valuable	2 Seldom Valuable	1 Not Valuable At All
Q37	37. CMGT 100: Concepts of Construction					
Q38	38. CMGT 101: Construction Management Career Prep					
Q39	39. CMGT 110: Construction Graphics					
Q40	40. CMGT 135: Construction Material and Systems					
Q41	41. CMGT 210: Analysis Construction Drawing					
Q42	42. CMGT 235: Electrical and Mechanical Systems.					
Q43	43. CMGT 270: Building Information Modeling					
Q44	44. CMGT 275: Architectural History					
Q45	45. CMGT 330: Principles of Soil Mechanics					
Q46	46. CMGT 332: Construction Method Analysis					
Q47	47. CMGT 335: Construction Equipment					
Q48	48. CMGT 340: Principles of Statics					
Q49	49. CMGT 345: Mechanics of Materials					
Q50	50. CMGT 360: Construction Project Management					
Q51	51. CMGT 380: Green Building Practices and LEEd Certification					
Q52						

Q52	52. CMGT 440: Temporary Structures					
Q53	53. CMGT 450: Construction Estimating					
Q54	54. CMGT 455: Construction Cost Management					
Q55	55. CMGT 457: Project Control and Scheduling					
Q56	56. CMGT 458: Heavy Construction Estimating					
Q57	57. CMGT 460: Legal Aspects of Construction					
Q58	58. CMGT 462: Construction of Contracts					

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Prepared Graduates

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

		5 Very Prepared	4 Prepared	3 Neutral	2 Unprepared	1 Very Unprepared
Q59	59. Effective problem solvers					
Q60	60. Effective oral communicators					
Q61	61. Function effectively on multi-disciplinary teams					

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62. Please list the strengths of the Construction Management program: Q62

You Have Characters Remaining.

63. Please list any areas needing improvement in the Construction Management program: Q63

You Have Characters Remaining.

64. Please list any specific feedback you have on Construction Management curriculum: Q64

You Have Characters Remaining.

65. Please share any other comments/feedback you have regarding the Construction Management program: Q65

You Have 60 Characters Remaining.

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Thank you for participating in this important research!

Your responses will be kept confidential!