

Colorado State University – Pueblo Academic Program Assessment Report for AY 2013-2014

Program: _Construction Management_____

Date: __June 1, 2016__

Completed by: _____Daniel Trujillo_ & Michael Mincic_____

Assessment contributors (other faculty involved in this program's assessment): __Mike Mincic M.ed. Dr. MD Islam_____

Listed below are the CM Student Learning Objectives (SLO): _Students who successfully complete the CM program will have the ability to:

1. **Apply knowledge, techniques, skills and tools of the construction industry in construction activities.****
2. Select and apply the knowledge of mathematics, science and technology to construction problems.
3. Perform standard tests, organize and interpret test data and apply test results to improve construction processes.
4. Function effectively as members or leaders on construction teams.
5. **Communicate effectively regarding subjects related to construction activities.****
6. Demonstrate an understanding of professional and ethical responsibilities.

** Indicates student learning outcomes assessed this cycle.

Please describe the 2015-2016 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2016-2017 based on the assessment process. In Part II, please describe activities engaged in during 2015-2016 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2015-2016. Thank you.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What method was used for assessing the SLO? Please include a copy of any rubrics used in the assessment process.	D. Who was assessed? Please fully describe the student group(s) and the number of students or artifacts involved.	E. What is the expected achievement level and how many or what proportion of students should be at it?	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
#1- Apply knowledge,	Academic year	Three category rubric assessing:	All 8 students	70% of the students	100% of students	Student's showed a high degree of	The instructor plans to integrate a cost loading and

techniques, skills and tools of the construction industry in construction activities	14/15 is the first time to evaluate this SLO	-Knowledge -Performance -Communication With additional course grading standards	enrolled in CM 351	will achieve level 2 or level 3.	achieve level 2 or level 3	competency with 4 students demonstrating superior knowledge, performance and communication	change orders to a baseline schedule for the final project and require a written or oral explanation and comparison of pre and post schedule changes.
#5- Communicate effectively regarding subjects related to construction activities.	Academic year 13/14 is the first time to evaluate this SLO	Three category rubric assessing: -Knowledge -Performance -Communication With special emphasis int communication and additional course evlautions such as a peer review rubric and an instructor rubric of final project presentation.	Final project consisting of construction schedule and narrative	70% of the students will achieve level 2 or level 3	The results are based upon evaluation 8 students.	The results are within the allowable range for the program.	An effort to retain consistent, thorough 7 excellent instructors especially in the adjunct area well ensure effective communication of construction related activities.

Comments:

During this assessment cycle the instructor evaluated SLO#1 (Apply knowledge, techniques, skills and tools of the construction industry in construction activities.), using the attached rubric. The rubric evaluates student knowledge, performance and communication as superior basic or unacceptable.

The instructor used the final grade, a project schedule and understanding of cost loading and change orders to assess the students' skills. Of the 8 students in the course, it was determined that four students demonstrated superior knowledge performance and communication. three student performed at a Superior level for Knowledge, one student performed at a basic level for performance and communication. Of those eight students, one student was marginal on the communication due to spelling and inability to submit projects in a timely manner. Overall the instructor determined that 100% of the students were able to communicate at level 3 superior or 2 basic.

During the 2014/15 academic year the CM program was able to hire an experienced, practiced and tenure track faculty. The addition of the full time tenure track faculty and continuos, experienced adjunct instruction sharing classroom strategies has proven to better prepare students in the two SLO's evaluated during this cycle.

II. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed? Please indicate the semester and year.	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
SLO #1	2013-2014	Adding written and oral analysis of schedules.	Yes, a comprehensive schedule with activities a realistic project was assigned, presented in a written and oral format and assessed.	The changes result in a more realistic and comprehensive scheduling and presentation exercise. This exercise demonstrated knowledge of the subject matter, performance and key oral and written communication skills. In the coming years greater assessment of the oral portion could be achieved.
SLO #5	2013-2014	Adding written and oral analysis of schedules.	See above	

Comments:

The CM Assessment plan was designed to evaluate 2 SLO's each assessment cycle. This cycle assessed the SLO's #1 & #5 for the second consecutive year as per plan. The back to back analysis provided faculty with better assessment instrument and program changes that were implemented immediately. Preliminary results to be producing students using the tools of the industry and communicating the industry activities well within or above the expected standard using employer satisfaction as one of the measurements.

Additional Items:

Graduate surveys will be sent out during July of 2016.

Employer surveys will be sent out in academic year 2016/17.

The CM Industrial Advisory Committee met in the fall of 2015.

Rubric: Construction Management Outcomes #1

Outcome: #1- Apply knowledge, techniques, skills and tools of the construction industry in construction activities.

Evidence: Review and Analysis of assigned projects during the CM 351-Construction Planning and Scheduling course.

Standard: We will be satisfied if 70% or more of the students achieve Level 2 or 3

Category			
	Level 3 (Superior)	Level 2 (Basic)	Level 1 (Unacceptable)
Knowledge:	Demonstrates an ability to apply superior knowledge of the techniques, skills and tools of the construction industry. Through the preparation of a comprehensive project addressing the planning and scheduling of construction activities. Also the ability to compare and contrast the results of the data to enhance quality of the results in the future Demonstrates ability to prepare a comprehensive report of the given project.	Demonstrates an ability to apply basic of the techniques, skills and tools of the construction industry. Through the preparation of a comprehensive report of the process and results of planning and scheduling of construction activities.. Also the ability to compare and contrast the results of the data to enhance quality of the results in the future Demonstrates ability to prepare a report of the given project.	Unable to demonstrate an ability to apply basic knowledge of the techniques, skills and tools of the construction industry. Through the preparation of a comprehensive report of planning and scheduling of construction activities. Also the ability to compare and contrast the results of the data to enhance quality of the results in the future Unable to demonstrates ability to prepare an acceptable report of the given project.
Performance	Performing superior techniques, skills and tools of the construction industry s by accomplishing the comprehensive project addressing the planning and scheduling of construction activities with minimal supervision and independent results demonstrated in a project and consultation of	Performing basic techniques, skills and tools of the construction industry by accomplishing the comprehensive project addressing the planning and scheduling of construction activities with minimal supervision and independent results demonstrated in a project report and consultation of supervising	Unable to perform of the techniques, skills and tools of the construction industry by accomplishing the comprehensive project addressing the planning and scheduling of construction activities with minimal supervision and independent results demonstrated in a project report and

	supervising authority. -Demonstrates a superior ability to compare and contrast the results of the data. -Demonstrates a superior ability to improve the results after analysis of data.	authority. -Demonstrates a basic ability to compare and contrast the results of the data. -Demonstrates a basic ability to improve the results after analysis of data.	consultation of supervising authority. -Unable to demonstrate a basic ability to compare and contrast the results of the data. -Unable to demonstrate a basic ability to improve the results after analysis of data.
Communication	-Demonstrates ability to prepare a superior comprehensive report of the specific construction estimating and management project quality of a competent leader. Using properly prepared standard formats as specified with no grammatical or spelling errors.	Demonstrates ability to prepare a basic report of the specific planning and scheduling of construction activities quality of a competent leader. Using properly prepared standard formats as specified with minimal grammatical or spelling errors.	Unable to prepare a basic report of the specific planning and scheduling of construction activities quality of a competent leader. Using properly prepared standard formats as specified with no grammatical or spelling errors.

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