

**University of Washington**  
**Department of Construction Management**  
**Academic Quality Improvement Plan Report for AY 2015/6**  
**Bachelor of Science in Construction Management Program**

This report highlights the findings of the AY 2015/6 assessment cycle. It serves as the basis for the faculty and Construction Industry Advisory Council (CIAC) review during the fall of 2016. Recommendations and any plans for updates will be documented in an “after review report”.

### **1. Strategic Plan for the Educational Unit**

The strategic plan for the University of Washington’s Construction Management department is found in a separate document titled “CM Strategic Plan 2015-2017” dated 8 October 2015.

This plan was reviewed by the faculty and staff in the fall of 2015.

### **2. Degree Program Assessment Plan**

A comprehensive assessment plan provides complete continuous improvement of our undergraduate degree program. AY 2015/6 was the first year of implementation of this plan.

#### **2.1 Undergraduate Program Mission Statement**

The construction management program prepares individuals for careers in the construction and related industries by providing a high quality education.

#### **2.2 Degree Program Objectives**

The following objectives are part of the strategic plan that relates to the undergraduate program and will be reviewed annually. The framework of these objectives are to provide accessible, challenging, quality, and contemporary educational program that prepares individuals to assume technical and managerial positions in the construction and related industries. Specific objective measurements with results are:

- Number of students admitted each year: Fall **2016: 70**
- Number of transfer students admitted each year: **2016: 11**
- Placement rate of graduates: **83% with an average starting salary of approximately \$62.5K**
- Accreditation by American Council for Construction Education (ACCE): **Completed 3-year report and all concerns have been alleviated**
- Provide experiential learning opportunities for students.
  - Number of students with internships **54 (out of 55 total), one student will not be returning**
  - Number of laboratory or field learning opportunities **2**

A historical representation of this data is found in Appendix A. This data will be reviewed for trends.

#### **2.3. Program Learning Outcomes**

The program learning outcomes meet and exceed the student learning outcomes required by ACCE. In addition to the program objectives listed above, the Student Learning Outcomes

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(SLOs) will be assessed, reviewed, and results acted on annually. Student work was assessed for a minimum level of conformance and the standard of the program's performance criteria. Individual assessment tools for specific SLOs are found in their respective notebooks.

Minimum level of conformance is limited to the 20 SLOs that are being assessed by one direct measure and one indirect measure. Our plan is to directly assess each SLO at least twice (except SLO 11), at different times during a student's tenure and measure all SLOs indirectly.

**2.4 Assessment tools and frequency of use for Student Learning Outcomes**

The following table provides a guide for which class has Student Learning Outcomes assessed. Each student learning outcome is assessed at least twice and at least one of these assessments is a direct assessment. DA = Direct Assessment, IA = Indirect Assessment

		1 WRITE	2 ORAL	3 SAFE	4 EST	5 SCH	6 ETHIC	7 DOCS	8 METHOD	9 MULIT TEAM	10 TECH	11 SURVEY	12 DELIVERY	13 RISK	14 ACCT	15 QC	16 CONTROL	17 LAW	18 SUSTAIN	19 STRUCT	20 MEP	
CM 301	Write	DA																				
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CM 322	Elect																					DA
CM 323	Meth 2								DA							DA						
CM 332	Equip								DA													
CM 331	Est 1		DA		DA			DA														
CM 333	Safe			DA										DA								
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CM 420	Temp Str																				DA	
CM 421	PM												DA		DA	DA						
CM 422	Comp App										DA											
CM 423	Law																	DA				
CM 431	Capstone		DA	DA		DA																
CM 432	Soils	DA																			DA	
CM 434	Lean																DA					
ARCH 321	Structures									DA												
Exit Survey		IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA	IA

### Student Learning Outcomes

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

### 2. 5. Assessment performance criteria results for Student Learning Outcomes

The following tables list the specifics of the assessment tools used, the performance criteria results used to measure the achievement of a student learning outcome, and the current results. A historical representation of this data is found in Appendix B. This data will be reviewed for trends.

#### 1. Create Written Communication appropriate to the construction discipline

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 301 Construction Communications/ Instructor	Business letter assignment	90% of the students will earn greater than 90%	A Missing W Missing S 46%
CM 432 Soils and Foundations/ Instructor	Research Paper	90% of the students earn greater than 90%	>90%, need specific value
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.0

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

<b>Where assessed/ Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 331 Construction Estimating/ Instructor	Group presentation	100% earn greater the 85%	A 100% B 100% C 92%
CM 431 Capstone/ Juror	Presentation to juror	100% of the students earn greater 40 out of 60 points	A 100% B 100% C 100%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.0

## 3. Create a construction project safety plan

<b>Where assessed/ Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 333 Safety/ Instructor	Safety plan for class project	At least 85% of students earn at least 85%	100%
CM 431 Capstone/ Instructor	Site specific hazard analysis plan	80% of students score greater than 4 out of 5 points	A 100% B 87% C 85%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.7

## 4. Create construction project cost estimates.

<b>Where assessed/ Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 331 Construction Estimating/ Instructor	Concrete MTO as homework assignment	100% of students earn at least 80%	A 89% B 86% C 95%
CM 410 Construction Estimating II/ Instructor	Self-perform/ GCs/ GMP estimate as homework assignment	100% of students earn at least 80%	92 %
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.0

## 5. Create construction project schedules

<b>Where assessed/ Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 411 Project Planning and Control/ Instructor	Final exam question to develop WBS and an activity network	80% of students earn at least 80%	Q 3 85% Q 4 89%
CM 431 Capstone/ Instructor	Create schedule of construction project with over 100 activities	80% of students earn at least 80%	A 80% B 85% C 83%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.7

## 6. Analyze professional decisions based on ethical principles

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 310 Introduction to the Construction Industry/ Instructor	Exam questions on Ethics	75% of students earn greater than 80%	98%
CM 412/ Instructor	Ethics paper	85% of the students earn at least an 80%	60%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.9

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

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 311 Construction Contract Documents/ Instructor	Series of questions on final exam	80% of students earn at least 80%	A.70% B.80%
CM 331 Construction Estimating/ Instructor	Use plans to develop a steel estimate	80% of students earn at least 80%	A 100% B Missing C Missing
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.1

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

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 323 Construction Methods and Materials II/ Instructor	Series of questions on midterm and final exams	45% of the students earn at least 80%	65%
CM 332 Construction Equipment Management/ Instructor	Series of calculation on a midterm exam to find the quantities, cycle times and number of trips	75% of students earn greater than 80%	93%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.6

## 9. Apply construction management skills as a member of a multidisciplinary team

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 313 Construction Methods and Materials/ Instructor	Methods and Materials lab to layout and construct steel structure	100% of the students earn 100% on laboratory assignment	Missing SLO Development, Completed 8/2016
Arch 321 Structures II/ Instructor	Team assignment perform structural analysis teams mixed with ARCH/ CM students	100% of the students earn greater than 90%	100% > 90%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.9

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

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 410 Construction Estimating II Lab/ Instructor	Create an estimate using software	100% of the students earn at least 80%	A.96%>80% B.86%>80%
CM 422 Computer Applications in Construction/ instructor	Create a schedule using software	80% of students earn at least 80%	89%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.0

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

Where assessed/Who	Assessment item	Performance Criteria	AY 15/16
CM 334 Construction Surveying/ Instructor	Students complete a level loop	90% of students are able to score at least a 90%	SLO not developed
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.3

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

Where assessed/ Who	Assessment item	Performance Criteria	AY 15/16
CM 310 Introduction to the Construction Industry/ Instructor	Student interview papers and exam questions	100% of students score between 80-90%	98%
CM 421 PM/ Instructor	Exam question on project delivery methods	80% of the students score greater than 80%	A 100% B 83% C 100%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	4.2

## 13. Understand construction risk management.

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 333 Construction Safety/ Instructor	Prepare JHAs for a portion of project	85% of the student earn at least 85%	Missing
CM 412 Construction practice/ Instructor	Series of exam questions	85% of the student earn at least 85%	100%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.9

## 14. Understand construction accounting and cost control

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 312 Construction Accounting/ Instructor	Answer a series of 10 questions on a final exam	90% of the students earn greater than 90%	A.55% B.31%
CM 421 Project Management/ Instructor	Earned value test question	85% of students earn at least 85%	A 96% B 88% C 60%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.5

## 15. Understand construction quality assurance and control

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 323 Construction Methods and Materials II/ Instructor	Four laboratory reports are prepared by students	85% of students earn at least 85% on each lab report	83%
CM 421 Project Management/ Instructor	Series of final exam questions that differential between active and passive QC	80% of students earn at least 80%	A 100% B 78% C 40%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.7

## 16. Understand construction project control processes

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 434 Lean Project Management/ Instructor	Series of five questions on final exam	85% of students earn at least 80%	Class not offered yet
CM 411 Construction Planning and Control/ Instructor	80% of students earn at least 80%	80% of students earn at least 80%	89%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.6

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

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 310 Introduction to Construction Industry/ Instructor	Series of questions on midterm exam about basic construction contract terms	80% of students earn at least 80%	77%
CM 423 Construction law/ Instructor			SLO tool not developed
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.6

## 18. Understand the basic principles of sustainable construction

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 313 Methods and Materials/ Instructor	Series of questions on midterm exam about sustainable construction materials	90 % of students earn at least 80%	SLO developed 8/16
CM 335 Sustainable Construction/ Instructor	LEED Green Associate Exam	At least 90% of students pass exam	98%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.6

## 19. Understand the basic principles of structural behavior

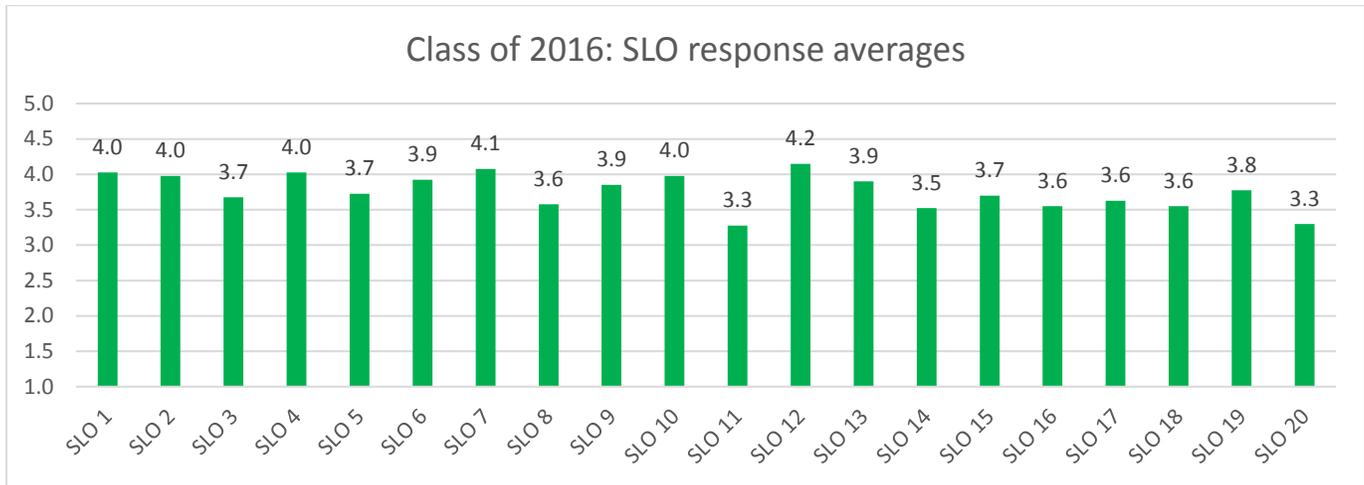
<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 420 Temporary Structures/ Instructor	Series of questions on midterm exam	90% of students earn 90%	Missing, SLO not developed
CM 432 Soils and Foundations/ Instructor	Series of questions on midterm exam	90% of students earn 90%	>90%
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.8

## 20. Understand the basic principles of mechanical, electrical and piping systems

<b>Where assessed/Who</b>	<b>Assessment item</b>	<b>Performance Criteria</b>	<b>AY 15/16</b>
CM 321 Mechanical Systems in Buildings/ Instructor			In development with new faculty
CM 322 Electrical Systems in Buildings/ Instructor	Response to RFP assignment	80% of students earn at least 80%	SLO developed but missing data
Exit Survey/ Academic Advisor	Question on how well students feel they can accomplish SLO	Greater than 4 on scale of 1 to 5	3.3

Exit Survey results for AY 2015/6

Class of 2016 Exit Survey



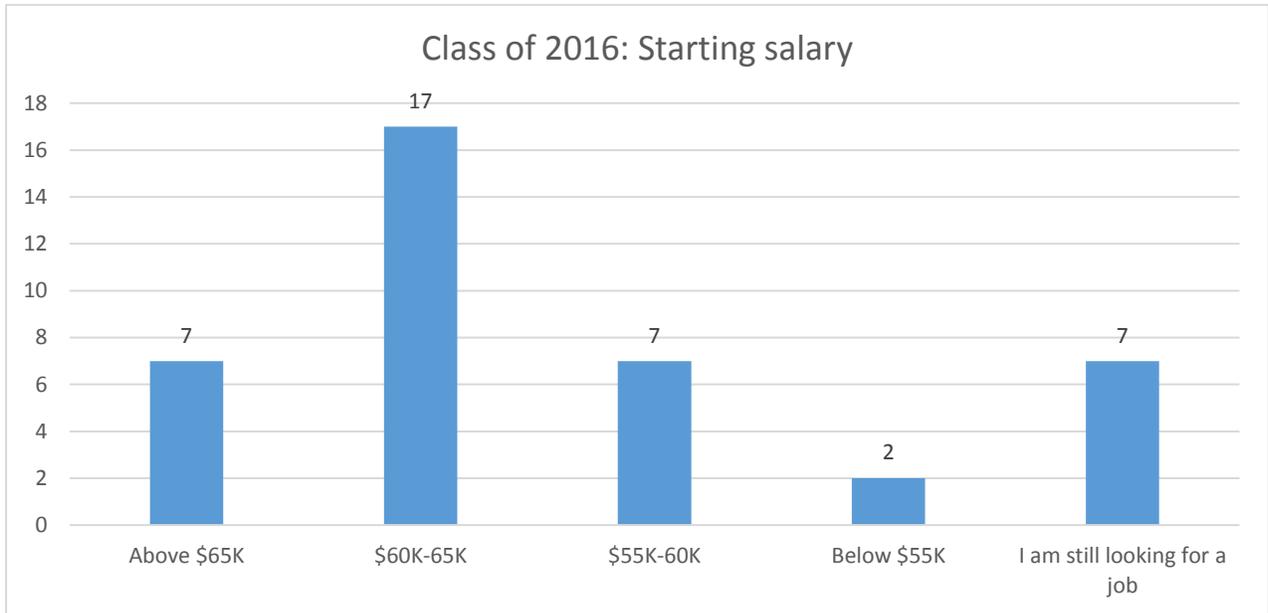
5	Outstanding level of knowledge gained
4	Above average knowledge
3	Just enough skill & knowledge to start work
2	Below expectation for entry level position
1	Not able to perform/Do not understand

- SLO 1: I am able to create oral presentations appropriate to the construction discipline.
- SLO 2: I am able to create written communications appropriate to the construction discipline.
- SLO 3: I am able to create a construction project safety plan.
- SLO 4: I am able to create construction project cost estimates.
- SLO 5: I am able to create construction project schedules.
- SLO 6: I am able to analyze professional decisions based on ethical principles.
- SLO 7: I am able to analyze construction documents for planning and management of construction processes.
- SLO 8: I am able to analyze methods, materials, and equipment used to construct projects.
- SLO 9: I am able to apply construction management skills as a member of a multidisciplinary team.
- SLO 10: I am able to apply electronic-based technology to manage the construction process.
- SLO 11: I am able to apply basic surveying techniques for construction layout and control.
- SLO 12: I understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- SLO 13: I understand construction risk management.
- SLO 14: I understand construction accounting and cost control.
- SLO 15: I understand construction quality assurance and control.
- SLO 16: I understand construction project control processes.
- SLO 17: I understand the legal implications of contract, common, and regulatory law to manage a construction project.

SLO 18: I understand the basic principles of sustainable construction.

SLO 19: I understand the basic principles of structural behavior.

SLO 20: I understand the basic principles of mechanical, electrical and piping systems.



**Is there anything else, positive or negative, that you would like to tell us about your experience in the program?**

Classes can be hard to concentrate sometimes as there are plenty of 3 hours classes at 6pm. Overall it was a great two years in the Construction Management program. I believe I learned the necessary skills to be successful in the industry.

We need more exposure to the field side of things. I am taking the superintendent class this quarter with Todd Chambers and he has already taught us a lot of things that we have never heard of, and this knowledge would be a lot more valuable earlier on in the curriculum (before capstone especially).

Course credits are just about useless when evaluating the difficulty or workload during a given quarter, which can make course scheduling very difficult. BY FAR the most difficult and demanding course was a 3 credit residential development class I took in fall quarter.

Any exposure that students can get in class to industry professionals is extremely valuable. My experience is that most of our professors are very well versed in their respective areas of study, but have not been working in the current industry and are lacking knowledge of the current economy, construction practices, and new technologies that are such a large part of our jobs coming out of school.

I enjoyed all of my classes that were instructed by professors who encouraged us to succeed. There were plenty of classes that were driven by negative reinforcement and I found that to be incredibly demoralizing and discouraging.

The recruitment at UW is great. I found the company presentations and interviews to be an excellent way to find out more about local companies and connect with them in an effort to find an internship/job.

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I felt my understanding of materials and methods was learned through my internships, not school. The first materials and methods class should be a smaller class size and a focus for CM students. The large lecture hall format does not encourage learning.

Majority of the knowledge gained over the past two years has been through my internships. Very minimal learning was actually accomplished within classes.

The most beneficial part of this program was capstone. While the process is hard, it shows us how it everything we have learned comes together. It also showed me that I know a lot more than I realized that I did. I think that the way that our capstone program is run is great and is an excellent way to finish the program.

Needs to be geared further toward Architects if you can call it a "dual degree program." It would be great to substitute some of the less substantive classes like cm412, electrical/mech, safety, etc, to classes that are pertain more to the design profession. I think a offering a minor with construction documents, estimating, mat & methods 1&2 and scheduling would have been better for me. But this SHOULD NOT be advertised as a dual degree towards architects- I had the wrong idea about what it was going in. I wish we would have taken more engineering coursework as well. Those were my favorite classes. Hooking up with the engineering college more would be cool, too.

It has been great.

About 95% of my knowledge comes from my internships and not from school. I feel like my schooling was not extremely beneficial for my future work. It did make me get an internship, which did help. There's a lot of classes that are not beneficial to our future and careers.

I would like to have more experience with heavy civil style construction rather than only focusing on commercial construction.

I am in the program to learn. The two classes in which I learned the most were pre-construction and capstone. This was because these two classes allowed me the most freedom and room to learn, No busy work hampered the process.

The program could use an overhaul of curriculum. There were multiple classes that were not beneficial our education. These classes typically had a lot of busy/homework, redundant lecture material, or only grazed the surface of learning a new topic.

However, there are plenty of extracurricular events and opportunities such as Reno. Capstone is incredibly comprehensive and is a great learning experience.

Need to reorganize when classes should be taken. Many classes, such as construction practices and law are taken too late, when the students should have known all of it prior to capstone. Make electrical and mechanical classes more interesting, or have more emphasis in them.

Fantastic 2 years!

More Heavy Civil and Subcontractor exposure would be nice, the program is too commercial heavy.

More coordination with professors in classes/topics/project.

More Heavy Civil classes

### **3. Assessment Implementation Plan**

Assessment evaluation data was due to the department chair by the 15th of each month after a quarter ends, except for spring when it is due on 15 June. The senior exit survey was conducted as part of the CM 412 Construction Practices class and results were made available by 15 June 2016. The department chair collated the program assessment data and degree program objectives data for review at both an autumn faculty and Construction Industry Advisory Council (CIAC) meeting. Recommendations, improvements, corrective actions, and changes will be recorded and reflected in future appendix (C) to this document.

#### 4. Chairs findings and recommendations:

AY 2015/6 should be considered our “beta” year. Not all SLO assessment tools had been completed by the end of the academic year. This was the first year the implementation plan was tried and data collection was mixed for a host of reasons.

### **Big Picture**

The entire degree program assessment plan should be reviewed and modified based on findings from our initial beta year. Specifically:

#### **Are we collecting data that will do us any good?**

From the information we have captured, does this tell us what and where to improve the program?

It appears that some of the assessments are very narrow snapshots of specific topics. SLO assessment tools should be reviewed for to determine if this specific information they are capturing is valuable to improve the student learning.

#### **Are we assessing the right things by the right people?**

Currently all SLO direct assessments are being performed by the instructor of record for the class they are mapped to be assessed in. To improve feedback we may want the instructor that initially taught a SLO to directly assess work that is in a follow on class. For example we could have writing assessment done in CM 431 by someone who teaches CM 301, etc. We should also review who is assessing what work. I’m uncomfortable with a writing assessment being performed in CM 432.

#### **Are we performing too many direct assessments?**

ACCE requires each SLO be assessed twice and that at least one assessment must be a direct assessment. We are directly assessing all SLOs at least twice, except for SLO 11 (surveying). This was done to provide redundancy in the plan in case one direct assessment was not performed.

More direct assessments require more work on the part of faculty and from my perspective provides limited value provided we are assessing to the correct level and frequency.

Recommend we only provide two direct assessments for the highest level of Blooms taxonomy of create, SLOs 1-5 (Written, oral, safety, estimating, and scheduling), and SLO 20 MEP (1 elect

+ 1 mech). This will provide a picture of the most meaningful and highest level of data. We should focus our assessment efforts where they have the most impact to improve the program. Recommend these two assessments occur in different classes.

**Are the assessments capturing the level of student learning required?**

All SLOs should be reviewed to ensure they are being assessed to the level of Bloom's taxonomy required and that the rubrics established can measure the level of student learning. For example "Create a construction project cost estimates": does the SLO assessment measure "create"?, is the rubric able to be applied objectively?, and does it measure individual student learning? These SLOs will be reviewed by the faculty at our fall retreat.

**How we collect data is awkward/ cumbersome.**

Chair will work with Katherine McDermott to develop a system on google documents that has faculty inputting data and comments into spreadsheets. Chair will need to remind faculty of the requirement and provide them with a link.

All faculty should perform some of this assessment and analysis. Affiliate faculty level of effort should be simplified and minimized.

Are the assessments being performed in the right classes? These SLOs will be reviewed by the faculty at our fall retreat.

- Are we following ACCE guidelines?

For the most part...

An area that needs review and most likely needs to be strengthened or updated is: "Provide an index, cross-tab, curriculum map, or other form of summary clearly relating Course Learning Outcomes (CLO) to Program Learning Outcomes (PLO) and, further, to the Student Learning Outcomes (SLO)." In the QIP we have the PLOs/ SLOs mapped to the specific courses. As an appendix to the QIP, CLOs are mapped to which SLO/PLO they support, this needs to be reviewed and updated.

- Missing SLO development and data collection

In the initial year the chair meet with all faculty involved, shared templates, discussed requirements, and timelines.

SLO Direct Assessment tools completed/ required: 36/39

SLO Direct Assessment data collected: 57/62

Note data collected is higher because of some classes having multiple sections taught by different instructors or during different quarters.

- Details

A review of the data collected reveals:

Of the direct assessment data collected all the performance criteria were met except:

SLO 1 write, 6 ethics, 7 docs, 14 Acct, 15 QC, 17 Law

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Of the indirect assessment data collected 6/20 exceeded the performance criteria established. The average score was 3.77/5 or 10/20 were both below average and the established performance criteria. These are SLO 3, 5, 8, 11, 14, 15, 16, 17, 18, and 20.

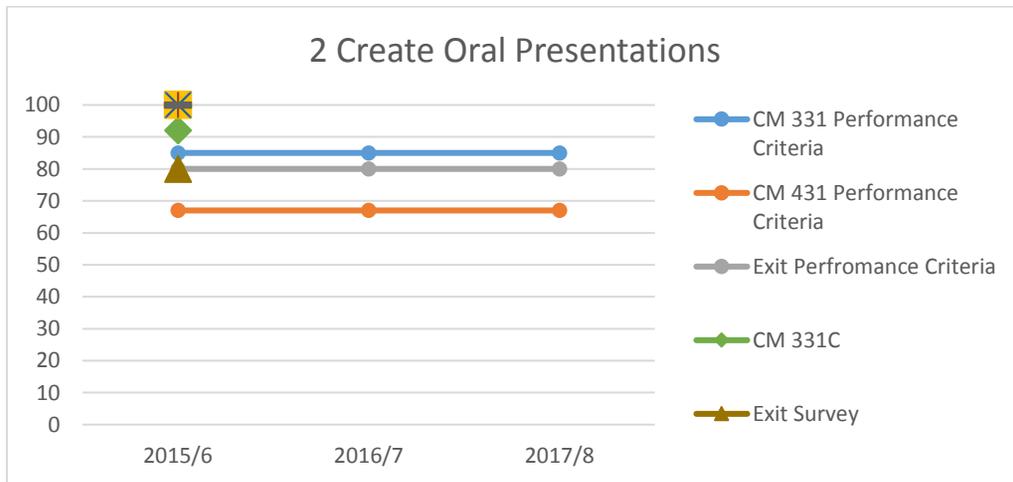
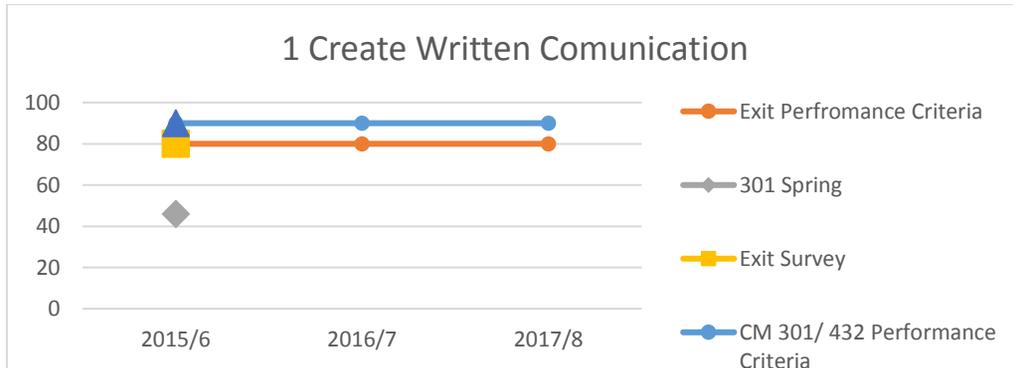
Of particular note are SLOs 11,14 and 20, something appears to me amiss in the students perception of how well they think they can apply survey techniques, accounting and understand MEP.

### Appendix A Historical Program Outcome Data AY 2015/6

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≥ Performance criteria,
< Performance criteria,
Missing SLO tool,
Missing SLO data

### Appendix B Historical SLO Data



### Appendix C Faculty review and recommendations

At the faculty retreat on 21 September 2016 the faculty reviewed the end of year report and each SLO in detail. Several SLO were redundant, did not provide meaningful data, or did not accurately meet ACCE standards. Therefore the faculty decided to reduce the total number of direct assessment SLOs from 39 to 32. One of the direct assessments for technology change from the estimating lab class to the virtual class.

Since the data collected was a beta year, no specific recommendations were made about achieving performance levels.

We recognized how we collected data was not very efficient. A system using goggle docs that everyone has access to upload their specific SLO data will be developed for use in AY 2016/17.

### CIAC review and recommendations

The results were shared with the CIAC curriculum committee. The committee did not have any substantive changes or recommendations. The committee did meet again to have a deeper understanding of the degree program and ACCE requirements.