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BOWLING GREEN STATE UNIVERSITY
Department of Construction Management

April 26, 2019

Construction Management Department
SLO Annual Review Meeting

Agenda

1. SLO Matrix Review
    a. I = Introduced, R = Reinforced, DA = Direct Assessment
    b. 1 Direct Assessment, 1 Indirect Assessment
    c. ACCE final determination of AIC results usage.

2. Direct Assessment tools – current assignment or test

3. Missing Data from Fall 2018

4. SLO Review – which includes the following data: direct assessment results, senior exit survey results, AIC exam results and alumni survey results.

    a. SLO 1 – Create written communications appropriate to the construction discipline.
    b. SLO 2 – Create oral presentations appropriate to the construction discipline.
    c. SLO 7 – Analyze construction documents for planning and management of construction processes.
    d. SLO 9 – Apply construction management skills as a member of a multidisciplinary team.
    e. SLO 12 – Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
    f. SLO 14 – Understand construction accounting and cost control.
    g. SLO 20 – Understand the basic principles of mechanical, electrical and piping systems.

5. Open discussion

6. Adjourn

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**Minutes**
SLO Review Meeting
4/26/19
PARK 100 8:30 a.m. – 10:00 a.m.

Present: Wil Roudebush, Mohammad Ilbeigi,
Scott Gross, Robert Austin, Pam Keppler

**Review of the SLO Course Assessment Matrix:**

The matrix now uses the following terminology; I = the SLO is introduced, R = the SLO is reinforced, IA = the SLO is indirectly assessed and DA = the SLO is directly assessed.

**After the review of the matrix, the following changes were made to the matrix and will be implemented in the Fall 2019 Semester:**

**SLO 1 – Create written communications appropriate to the construction discipline:**
The direct assessment is assigned to CONS 3590 – Construction Estimating and Cost Control. CONS 4110 – Safety/Health Management will no longer be a direct assessment, but will remain a course that reinforces the SLO (R).

**SLO 2 – Create oral presentations appropriate to the construction discipline:**
CONS 2590 – Construction Document Reading is no longer the direct assessment, but will indicate that the topic is introduced (I). The direct assessment is now assigned to CONS 4700 – Construction Capstone.

**SLO 3 – Create a construction project safety plan:**
The SLO is not introduced in CONS 2350 Introduction to Construction. The SLO is now introduced (I) in CONS 2590 – Construction Document Reading. The SLO is further reinforced (R) in CONS 3350 – Construction Materials and Testing and CONS 3590 – Estimating and Cost Control.

**SLO 5 – Create construction project schedules:**
This SLO is also reinforced (R) in CONS 3370 – Heating, Ventilation and Air Conditioning Systems.

**SLO 6 – Analyze professional decisions based on ethical principles.**
This SLO is also reinforced (R) in CONS 4350 – Construction Methods and Practices.

**SLO 8 – Analyze methods, materials and equipment used in construction processes:**
The direct assessment is assigned to CONS 3350 – Construction Materials and Testing. CONS 4350 – Construction Methods and Practices will no longer be a direct assessment, but will remain a course that reinforces (R) the SLO.

**SLO 10 – Apply electronic based technology to manage the construction process:**
The direct assessment is assigned to CONS 3710 – BIM for Constructors. CONS 4590 – Construction Estimating Computer Applications will no longer be a direct assessment, but will remain a course that reinforces (R) the SLO.

**SLO 11 – Apply basic surveying techniques for construction layout and control:**
The SLO is introduced (I) in CONS 2590 – Construction Document Reading. Additionally, the SLO is reinforced (R) in CONS 4350 – Construction Methods and Practices and CONS 4700 – Construction Capstone.

**SLO 13 – Understand construction risk management:**
The direct assessment will remain in CONS 4350 Construction Methods and Materials. The SLO will no longer be directly assessed in CONS 4400 – Construction Contracting. CONS 4400 will remain a course that reinforces (R) the SLO.

**SLO 14 – Understand construction accounting and cost control:**
The direct assessment is assigned to CONS 4590 – Construction Estimating Computer Applications. CONS 3590 – Estimating and Cost Control and CONS 4350 – Construction Methods and Practices will no longer be a direct assessment, but will remain courses that reinforce (R) the SLO.

**SLO 15 – Understand quality assurance and control:**
The SLO is introduced (I) in CONS 2350 – Introduction to Construction. The SLO is reinforced (R) in CONS 2590 – Construction Document Reading, CONS 3710 – BIM for Constructors, CONS 4350 – Construction Methods and Practices and CONS 4700 – Construction Capstone.

**SLO 17 – Understand the legal implications of contract, common and regulatory law to manage a construction project:**
The SLO is introduced (I) in CONS 2350 – Introduction to Construction.

**SLO 19 – Understand the basic principles of structural behavior:**
The SLO is introduced (I) in CONS 2350 – Introduction to Construction. The SLO is reinforced (R) in CONS 3350 – Construction Materials and Testing and CONS 4060 – Temporary and Concrete Structures for Construction.

NOTE: The revised SLO Course Assessment Matrix will also be distributed that reflects these changes.

**Data results needed for the following SLOs:**

**Spring 2018**

15. **Austin (3350):** SLO 15 - Understand construction quality assurance and control.

**Fall 2018**

5. **Ilbeigi (4420):** SLO 5 - Create construction project schedules.
6. **Atalah (4400):** SLO 6 - Analyze professional decisions based on ethical principles.
10. **Ilbeigi (4590):** SLO 10 - Apply electronic-based technology to manage the construction process.
11. **Lavalette (3180):** SLO 11 - Apply basic surveying techniques for construction layout and control.
12. **Atalah (4400):** SLO 12 - Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
13. **Atalah (4400):** SLO 13 - Understand construction risk management.
16. **Ilbeigi (4420):** SLO 16 - Understand construction project control processes.
17. **Atalah (4400):** SLO 17 - Understand the legal implications of contract, common, and regulatory law to manage a construction project.
19. **Lavalette (3360):** SLO 19 - Understand the basic principles of structural behavior.
20. **Ballard (3370):** SLO 20 - Understand the basic principles of mechanical, electrical and piping systems.

# SPECIFIC SLO REVIEW:

Data results from the data gathered in class was used to review the following SLOs

The department used the following data results to review the following SLOS:

1. AIC exam results (direct assessment for SLOs 6-8, and 12-20)
2. Data results gathered from in-class assignments (direct assessment for all SLOs)
3. Senior exit survey results (indirect assessment for all SLOs)
4. Alumni survey results (indirect assessment for all SLOs)

**SLOs to Review:**

SLO 1 - Create written communications appropriate to the construction discipline.
SLO 2 - Create oral presentations appropriate to the construction discipline.
SLO 7 - Analyze construction documents for planning and management of construction processes.
SLO 9 - Apply construction management skills as a member of a multidisciplinary team.
SLO 12 - Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
SLO 14 - Understand construction accounting and cost control.
SLO 20 - Understand the basic principles of mechanical, electrical and piping systems.

**SLO Review and Recommendations:**

**SLO 1 - Create written communications appropriate to the construction discipline.**

- Continue using the Scope Letter assignment from CONS 3590 as the Direct Assessment tool.
- Discontinue using the Health and Safety Plan assignment from CONS 4110 as a direct assessment.
- On the Course Assessment Matrix, list CONS 4110 as a course that reinforces (R) the SLO.

**SLO 2 - Create oral presentations appropriate to the construction discipline.**

- Discontinue using the oral presentation in CONS 2590 as the Direct Assessment tool.
- List CONS 2590 as the course that introduces (I) the SLO on the Course Assessment Matrix.
- Use the Oral Presentation in CONS 4700 Capstone as the Direct Assessment for this SLO.
- Determine if any other courses can reinforce this SLO prior to the Direct Assessment.

**SLO 7 - Analyze construction documents for planning and management of construction processes.**

- The SLO review determined that no changes were needed for this assessment.

**SLO 9 - Apply construction management skills as a member of a multidisciplinary team.**

- It is appropriate to track this SLO in the CONS 4700 Capstone class. Bob would like to re-tool the assignment and the lecture for this Direct Assessment however.
- The faculty should also explore courses in which to further reinforce this SLO prior to the Capstone class.

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

- The faculty should consider "blue sheeting" the course to better align with this SLO and better define the course curriculum.
- An updated copy of the instructor's exam is needed for the record.
- This SLO should be better reinforced in classes like CONS 2350 and CONS 4350 prior to the Direct Assessment.

**SLO 14 - Understand construction accounting and cost control.**

- Discontinue using the assignment in CONS 3590 Estimating and Cost Control for this Direct Assessment.
- CONS 3590 will remain as a course that reinforces (R) this SLO.
- CONS 4590 Construction Estimating Computer Applications will be the course which contains the Direct Assessment for this SLO.
- Scott will develop a more robust lecture and assignment which will build upon the lecture and assignments presented in CONS 3590.

**SLO 20 - Understand the basic principles of mechanical, electrical and piping systems.**

- CONS 3370 has been an issue from the standpoint that multiple instructors has taught this class in recent history. Finding one instructor to teach this class would greatly add to the consistency from one year to the next.
- Bob is teaching this course in the fall. He will develop a cohesive assignment that accurately assesses this SLO.
- It was noted that the data gathered in the Spring 2018 semester was the most consistent. This data included the Direct Assessment course data, the Senior Exit Survey, and the AIC exam results.

**General Recommendations**:

- No additional comments were made.

Meeting Adjourned.