

Five-Year Program Review
Parson Construction Management Technology Department
Faculty Response to Review

April 17, 2018

A. Overview

The faculty of the Construction Management Technology Department feels that the report submitted by the review committee is a fair and accurate representation of the status of the department's programs. The 5-year program review committee noted the program's strengths, challenges, and opportunities, and made recommendations for improvement. The review committee found no areas that did not meet the outlined standards.

B. Strengths

Standard A: Mission: (Response) The faculty is proud of the department's mission. The faculty continues to strive to recruit students from diverse backgrounds to prepare them for construction management positions in service to the community and the construction industry.

Standard B: Curriculum: (Response) The faculty has worked diligently to improve the program's curriculum to meet the needs of industry. We will continue to review program's curriculum to stay abreast with the needs of industry.

Standard C: Student Learning Outcomes and Assessment: (Response) The faculty has worked hard to develop Student Learning Outcomes reflecting industry requirements, measurable by faculty and achieved by students. Faculty will continue to review and assess outcomes for student success. *However, see "Challenges/Opportunities" and "Recommendations" below.*

Standard E: Faculty: (Response) The department is proud of the faculty and the talent brought to the programs. Our adjunct faculty are truly an asset to the program.

Standard G: Relationships with External Communities: (Response) The faculty is blessed with an active advisory board and a evolving alumni committee. Both bring support and talent to the advisory board's "working" committees.

C. Challenges/Opportunities

- a. **Standard B: Curriculum:** The program should consider increasing civil engineering (such as surveying) to improve the program.

Response: The program has a surveying program within the curriculum. Coursework revisions were included in the current curriculum revisions and are to be implemented in the spring term of 2019. Civil construction engineering applications are currently included in “Temporary Structures” and “Construction Equipment and Methods.”

- b. Standard F: Program Support:** Marketing to traditional students is a growth opportunity for the CMT program. The CMT program is working toward this goal with the “Center for Excellence.”

Response: The department is implementing the “Center for Excellence” in July 2018. The department will utilize this support from industry to introduce and recruit additional traditional and non-traditional students to the benefits of a career in the construction industry. A student workshop planned for late May 2018 will introduce the high school and community college students to the new “Center for Excellence” and the opportunities available to them in the department’s programs.

- c. Standard B: Curriculum:** The program appears to lack a commitment to the use of technology in the program. Students commented that a few key programs such as Bluebeam, Revit and ... are introduced, but no in-depth instruction occurs. Based on feedback from an industry questionnaire, additional commitment to the use of technology will better prepare students to enter the industry and be a competitive advantage when the economy changes to a downturn.

Response: The faculty is committed to introduce students to the new technology used by the construction industry. As stated in the department’s mission, the faculty is committed to educate the students in the fundamental skills, knowledge, and practices of the industry to prepare them for the employers of the construction industry. The challenge of rapid technology change presents a difficult balance between educating and training students. We will continue to introduce the basic concepts of the new technologies and work toward developing coursework to train students in current industry application technologies. *See response to Recommendations item a below.*

- d. Standard C: Student Learning Outcomes and Assessment:** The AIC Constructor Certification exam is helpful in measuring many SLO’s as defined by ACCE. However, it may lack the ability to measure the “Soft Skill” SLO’s that are equally important.

Response: The faculty agrees with this challenge. Measuring soft skills are assessed in various course settings as outlined in the self-study Standard C – Student Learning Outcomes and Assessment. More attention will be given to the courses outcome assessment as noted in the self-study matrix. *See response to Recommendations item d below.*

D. Recommendations

- a. Standard B: Curriculum:** The CMT program would benefit from reviewing technology instruction and use in the entire curriculum, planning coursework to build upon previous technology used in courses, and polishing relevant technology skills as the student nears completion of the program.

Response: The faculty will continue to integrate technology with fundamental skills and knowledge applicable to the course curriculum levels. Balancing academic material with technological applications presents pedagogical challenges. Faculty will continue to update course/classroom material to meet current industry developments.

- b. Standard C: Student Learning Outcomes and Assessment:** The students in the CMT program would benefit from spreading the use of electronic based technology throughout the curriculum in addition to, or in lieu of, a specific technology based class. For example, using a program such as Bluebeam in management based courses to generate submittals and/or RFI's would encourage learning while addressing ACCE SLO's 1, 6, 7, 8, and 10. The same program could be used to teach student takeoff skills and incorporate ACCE SLO's 4, 7, 8, 10, and 14. Implementing the use of various technologies across the curriculum as opposed to just in one dedicated class encourages expanded and/or reinforced knowledge through other SLO's and technologies.

Response: Department faculty has recognized the need to chain current industry technology within the course/curriculum levels. Planning will continue to integrate industry technology in lower level coursework for expanded application in upper level classroom activities. This is to include estimating, planning, and management applications.

- c. Standard C: Student Learning Outcomes and Assessment:** CMT students have a strong work ethic and are thus in demand by industry. One area of improvement would be in students' presentation skills. Consideration should be given to conducting additional local competitions supported by industry allowing students to polish their presentation skills.

Response: While we agree with this recommendation, we struggle to get a small portion of the students going to the competitions provided. Currently, most of our students are non-traditional students who have very limited "free" time to invest in these activities. We will continue to require subject presentations in our coursework and work toward student presentation improvement.

- d. Standard C: Student Learning Outcomes and Assessment:** Ensure that all SLO's are being met throughout the curriculum. Many SLO's may be difficult to assess through using a test such as the AIC Constructor Certification Exam. Specifically SLO's that focus on "soft skills" and technology may need to be assessed in different ways. These may include the following ACCE SLO's:

- i. 1. Create written communications appropriate to the construction discipline
- ii. 2. Create oral presentations appropriate to the construction discipline
- iii. 6. Analyze professional decisions based on ethical principles.
- iv. 10. Apply electronic-based technology to manage the construction process.

Response: Faculty recognizes the importance of soft-skills in the construction industry. We will continue to assess classroom coursework, review student success, and implement measures to improve students' abilities with soft-skills. This will include report writing as well as classroom presentations at each level within the programs.

- e. **Standard C: Student Learning Outcomes and Assessment:** To improve students' scores on the structures portion of the graduation (AIC) exam, consider ways to encourage students' taking Physics immediately before the structures courses.

Response: We will continue to encourage students to complete math and physics before upper division coursework.

- f. **Standard C: Student Learning Outcomes and Assessment:** Students were concerned about Writing Center requirements in courses. The availability of the Writing Center through either online or in-person was limited for these evening students. Most students felt the Writing Center was over-used and was more "busy work" rather than productive and relevant to the topics being taught. Review of the frequency of use of the Writing Center should be re-evaluated. If the Writing Center is used, coordination should occur with the Writing Center to offer services at the Davis Campus that would serve the working student's schedule. Sessions where students may phone in and/or consult online may also be helpful. Faculty must ensure that students are taught the importance of writing and construction communication. Doing so, they will see the value in the sessions and how it helps the students meet SLO's. Consideration should also be given to a consistent writing style (APA) for student work. This consistency will help better prepare students for the construction industry.

Response: While many students have difficulties with writing and the Writing Center, we strongly encourage students to utilize the Writing Center. The Center's writing suggestions should help students improve their writing skills. We currently encourage students to take ENGL 2010 EN - Intermediate College Writing during the 2nd semester of the first year and NTM 3250 – Business Communication during the 3rd semester. The faculty will evaluate the courses' timing within our curriculum, and review the student assessment for success. Since these courses are taught outside our department, identifying student-writing problems early should help in finding a solution to this soft-skill problem. We will continue to require writing and the use of the Davis Writing Center within our curriculum. Students waiting to the last minute to use the Writing Center will continue to have difficulties with their course writing schedules and their assignments.

- g. Standard E: Faculty:** The CMT program needs to invest in continuing education to maintain relevancy for faculty. Faculty in the CMT program should consider opportunities such as externships as an opportunity to maintain relevancy. The faculty should consider applying for grants such as Perkins to fund these experiences. In addition, industry is willing to provide additional real-work examples for classes.

Response: The Department will continue to encourage faculty's continuing education. We support faculty externships opportunities with industry, and will investigate the use of grant funds to support this endeavor. The department will continue to seek industry's support in the classroom for real-work examples and directed discussions.

E. Conclusion:

Over the last five years, the department programs have seen changes in the construction industry and in program enrollments. These changes are a reflection of the downturn of national economy, and a slowdown in industry developments. The current outlook for the department programs however is very positive. We look forward to improved enrollment and program content. The faculty has revised the program curriculum, integrated technology in the classroom, and worked closely with the industry advisory board. We appreciate the review team's recommendations and suggestions. The department will strive to implement the review team's recommendations and suggestions, as indicated above, to improve the programs for our student success.

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