1. Create written communications appropriate to the construction discipline. Instrument: Contractual & Logistical Exercise Project 7B

Past cycle results: Fall 2020

The target was met with 83% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was not met with less than 70% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: The percent of students reaching a minimum of 70% decreased by 13%. The professors commented that this was an anomaly and that "work ethic and academic integrity issues plagued the course all semester and hindered the overall results. Three additional students failed the course, which is unprecedented but necessary to maintain standards".

Recommendations/Actions: "The instructors will continue to refine course content but more importantly, continue to uphold the academic standards of the department and university."

2. Create oral presentations appropriate to the construction discipline. Instrument: Collaborative Project Presentation

Past cycle results: Fall 2020

The target was met with 70% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 82% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, with the second year increasing by 12%.

Recommendations/Actions: The instructors mentioned that "one student did not present", and that "the content of presentation and visual aids did not address the project scope sufficiently for a portion of students", so that can be improved in the future.

3. Create a construction project safety plan. Instrument: Safety Plan

Past cycle results: Fall 2020

The target was met with 74% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 75% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, both above the 70%.

Recommendations/Actions: The instructor did not find any particular action to be taken.

4. Create construction project cost estimates. Instrument: Midterm/project #4 concrete take-off

Past cycle results: Spring 2021

The target was met with 94% of students achieving at least 70% overall.

Current cycle results: Spring 2024

The target was met with 96% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, with the second cycle increasing by 2%. Overall, they both are very high over the 70%.

Recommendations/Actions: The instructors commented that they added take-off and spec quizzes to further reinforce the assessment.

5. Create construction project schedules. Instrument: Final Project Schedule

Past cycle results: Fall 2020

The target was met with 90% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 86% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, both well over the 70%.

Recommendations/Actions: The instructor commented that in the future he would "require column selection calculations at In Progress Review" and "add a comparison of hand calculations vs. computer results in a HW exercise prior to the design project".

Create written communications appropriate to the construction discipline. Instrument: Test 1 and final exam.

Past cycle results: Fall 2020

The target was met with 83% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 70% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Students reached the intended goal and although the final exam was difficult, all managed to still get the necessary grades.

Recommendations/Actions: The instructors noted that "final exam question 2 is a "select all that apply" multiple choice question. Students who received partial credit do not read the question carefully and only selected one of the two correct answers".

7. Analyze methods, materials, and equipment used to construct projects. Instrument used: Wall and roof systems assessment.

Past cycle results: Spring 2021 The target was met with 86% of students achieving at least 70% overall.

Current cycle results: Fall 2023 The target was met with 90% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: The percent of students reaching a minimum of 70% increased by 4%. Overall, this course is exceeding the required amount and is improving each year.

Recommendations/Actions: The instructors noticed that some students "struggled to find detailed and reliable information on less common wall systems." And provided "a list of vetted resources and contact points for manufacturers to assist students with obtaining detailed information".

8. Apply electronic-based technology to manage the construction process.

Past cycle results: Spring 2021

The target was met with 97% of students achieving at least 70% overall.

Current cycle results: Spring 2024

The target was met with 95.4% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: The percent of students reaching a minimum of 70% is consistently over 20% the minimum. Overall, this course is exceeding the required amount.

Recommendations/Actions: The instructors noticed that "teamwork allows some students to do more work than others." So, in the future redesigning how the parts in each team are divvied out and subsequently graded.

9. Apply basic surveying techniques for construction layout and control. Instrument used: Surveying Project

Past cycle results: Fall 2020

The target was met with 94% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 85% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, both well above the 70%.

Recommendations/Actions: The instructor noted that "a few students could not read the stick without supplemental instruction" and so in the future the instructor will "refamiliarize most students with BS, FS and HI terminology".

10. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process. Instrument: Multiple exam questions

Past cycle results: Fall 2020

The target was met with 77% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was not met with less than 70% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: This cycle the standard was not met, although the cycle before it was exceeded. The professors commented, "Question 5 was the most difficult, with many students not understanding the relationship between project delivery methods and contract types. This question has not historically been an issue for prior classes".

Recommendations/Actions: The instructors noted that "this class had the lowest grade distribution in the history of the course and two students failed the course, which is unprecedented". They suggested that "the course is well-established. As Covid-era students are phased out of the curriculum there is confidence that performance will return to pre-Covid measures."

11. Understand construction accounting and cost control. Instrument used: Financial Exam 1.

Past cycle results: Spring 2021 The target was met with 70% of students achieving at least 70% overall.

Current cycle results: Spring 2024

The target was met with 80% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, improving by 10% in the second cycle.

Recommendations/Actions: The instructors noted that "the importance of drawing the timeline first should be emphasized" and suggested that using more practice sets in class and making them mandatory could help with that.

12. Understand construction quality assurance and control. Instrument used: Wall Systems Fabrication Process Documentation.

Past cycle results: Spring 2021

The target was met with 89% of students achieving at least 70% overall.

Current cycle results: Spring 2024

The target was met with 83.9% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, each one well over the 70%.

Recommendations/Actions: The instructors noted that "some unplanned changes led to some inefficiencies and delays" and suggested that in the future better planning and communications could improve this.

13. Understand construction project control processes. Instrument: Project 10B- Defective Work

Past cycle results: Fall 2020

The target was met with 81% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 70% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, however the second cycle decreased by 11%.

Recommendations/Actions: The instructors suggested that "work ethic issues plagued the course all semester and hindered the overall results." They will continue to refine the course content as needed.

14. Understand the legal implications of contract, common, and regulatory law to manage a construction project. Instrument: Project 4- Arbitration

Past cycle results: Fall 2020

The target was met with 86% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 70% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, however the second cycle decreased by 16%.

Recommendations/Actions: The instructors commented that "two students had reported honor code violations related to this project and therefore do not have scores recorded. Both students received an XF for the course", which hopefully will not happen in future semesters and therefore improve overall scoring.

15. Understand the basic principles of sustainable construction. Instrument used: Exam #1

Past cycle results: Spring 2021 The target was met with 94% of students achieving at least 70% overall.

Current cycle results: Spring 2024 The target was met with 86.8% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, with the first cycle higher by 7%, although both are well over the necessary number.

Recommendations/Actions: The instructor did not find any particular action to be taken.

16. Understand the basic principles of structural behavior.

Past cycle results: Spring 2021 The target was met with 95% of students achieving at least 70% overall.

Current cycle results: Spring 2024 The target was met with 100% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, both significantly above the 70%.

Recommendations/Actions: The instructor says the course "is well-established" and that any grades not up to par will improve "as Covid-era students are phased out".

17. Understand the basic principles of mechanical, electrical, and piping systems. Instruments: Chapter 5 Assignment-mechanical; Chapter 3B-Plumbing; and Electrical Layout Assignment/ Final Exam

Past cycle results: Fall 2020

The target was met with 76% of students achieving at least 70% overall.

Current cycle results: Fall 2023

The target was met with 91% of the students achieving at least 70% overall.

Target: 70% of the students achieve at least 70% overall

Analysis: Both cycles achieved the desired goal, both well above the 70%.

Recommendations/Actions: The instructor did not find any particular action to be taken.