

Comprehensive Program Review Report



Program Review - Construction Technology

Program Summary

2021-2022

Prepared by: Brian Unruh

What are the strengths of your area?: Construction Technology success rates have increased steadily over the past three years despite the pandemic which heavily effected the area. Although number of full time students is down from a year ago, the current percentage is higher than the 18/19 school year indicating steady growth over the past three school years.

What improvements are needed?: The FTES/FTEF ratio is lower than the target ratio. Greater outreach with local high schools is needed

Data shows that success rates among Hispanic groups is lower than other groups displayed. Equitable solutions such as construction specified tutoring and syllabus reconstruction with equity in mind may produce better results.

Describe any external opportunities or challenges.: I have had several business partners contact me for prospective employees. I feel like there are very few qualified individuals who are ready for full time employment in the construction field.

Overall SLO Achievement: Student learning outcomes have been satisfactory even during the COVID pandemic which resulted in alternate methods of instruction. Some courses have been changed to offer a more efficient education for students.

Changes Based on SLO Achievement: Changes have been made to CT 277, CT 205, CT 260 and CT 262. Changes for CT 277 include more organized SLOs which lend to better instruction for structural inspection for students, however, this course may be inactivated due to historically low enrollment. Changes for CT 260/262 are due to the classes being stacked in the past. A new skill certificate has been developed which includes these two classes so SLOs have been changed to better define each class.

Overall PLO Achievement: Although enrollment has been good for the past few semesters. despite the COVID emergency, finish rates are very low for students. Therefore changes in the Construction Technology program are being unveiled which will better streamline the program without compromising the quality of instruction.

Changes Based on PLO Achievement: I plan to remove several degrees and certificates within the Construction Technology program due to low finish rates. This will allow students to gain their desired certificates and still offer greater placement rates into the job market.

Outcome cycle evaluation: We have great relationships with business partners and have even partnered with Woodside Homes for an internship for some COS students. Although completion rates are low and the pandemic has been a challenge, we offer a well rounded education for students entering the construction trade and are able to aid students in entering the work force.

Related Documents:

[Construction LMI, 2021.pdf](#)

[CT 2021 Program Review Data.pdf](#)

Action: Student workers for shop activities

In an effort to maximize lab times, I would like to hire two student workers to help with lab setup, tool inventory, and shop cleanup. Both student workers will be hired for 3 hours per week.

Leave Blank:

Implementation Timeline: 2021 - 2022

Leave Blank:

Leave Blank:

Identify related course/program outcomes:

Person(s) Responsible (Name and Position): Brian Unruh, Instructor of Construction Technology

Rationale (With supporting data):

Priority: High

Safety Issue: Yes

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External Mandate: No

Safety/Mandate Explanation: By having a student worker in the shop to help keep floors swept and shop organized, they would help lessen trip and slip hazards.

Resources Description

Hire two student workers to work in the wood shop for 3 hour per week for shop cleanup, tool inventory, and lab setup.
(Active)

Why is this resource required for this action?: This will benefit those working in the shop by helping with cleanup, organization and tool checkout. Additionally the student worker will help with cleanup and lab setups which will maximize lab times.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 1587.3

Action: Syllabus equity

Alter each of the course syllabi to promote equity and increase student success.

Leave Blank:

Implementation Timeline: 2021 - 2022

Leave Blank:

Leave Blank:

Identify related course/program outcomes:

Person(s) Responsible (Name and Position): Brian Unruh, Instructor of Construction Technology

Rationale (With supporting data):

Priority: High

Safety Issue: No

External Mandate: No

Safety/Mandate Explanation:

Action: Provide updated tools for students to use during lab activities.

Increase student success through the updating and addition of industry driven technology.

Leave Blank: New Action

Implementation Timeline: 2020 - 2021

Leave Blank:

Leave Blank:

Identify related course/program outcomes: CT 220 - Outcome #1: After completing this course students will demonstrate proper job site safety and safe use of power tools to avoid personal injury

CT 221 -Outcome #3: After completing this course, students will demonstrate proper maintenance of power tools used on class construction projects.

CT 250 - Outcome #3: Given a hand-held circular saw, students will be able to demonstrate its safe and proper operation and pass a safety test on circular saws with 100% accuracy.

Person(s) Responsible (Name and Position): Brian Unruh

Rationale (With supporting data): The construction industry is dependent upon specialized technology used in every area of this industry. Through discussions with my industry partners, I have identified the need for modernization and updates of industry recommended technologies.

Priority: High

Safety Issue: No

External Mandate: No

Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2021-2022

08/10/2021

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Status: Action Completed

The new classroom in Cedar has been completed and will be used during this school year for all classroom sessions. Last school year, Shane Baseman used the classroom for CT 100 labs, but the classroom will be used in greater capacity this school year.

Impact on District Objectives/Unit Outcomes (Not Required):

Update Year: 2021-2022

08/10/2021

Status: Continue Action Next Year

New electrical outlets have been installed to offer two new miter saw stations in the wood shop. The stations are not yet complete, but will offer more availability for students during lab activities as there is always a backup as students wait for one miter saw.

Impact on District Objectives/Unit Outcomes (Not Required):

Update Year: 2020 - 2021

09/21/2020

Status: Continue Action Next Year

Due to the demolition of the Buckeye building, a temporary classroom is being remodeled in Cedar 425 which will accommodate 22 student stations. The new classroom will have large screens and a computer at each student station that will be an upgrade from the classroom in the Buckeye building.

Impact on District Objectives/Unit Outcomes (Not Required):

Update Year: 2020 - 2021

08/28/2020

Status: Action Completed

The Construction Tech Program was able to purchase some new equipment and software for the program. A new CNC machine was purchased along with the software for creating endless designs to be used for wood working and cabinetry. Also, a 3D printer was purchased which allows students to use Auto Cad to draft and print objects.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Equipment - Instructional - Purchase new battery tools, carpenter tools, and drywall tools. (Active)

Why is this resource required for this action?: DO 2.2 and 2.4

Currently the COS wood shop does not have adequate carpenter tools to provide students with a real world work experience which will prepare them for their future in construction.

-Student feedback indicates that the current framing hammers are not comparable to the tools that will be used when students become employed in the construction field.

-Tool belts are required while working on wall framing, drywall installation, and other activities performed in the field. Students need tool/nail belts to learn how to finger nails quickly to perform at production level upon employment in the field.

-Current battery tools do not provide long enough battery life and inhibit students from continued operation while working on lab activities. New battery tools will provide longer lasting operation which will allow students to remain on task.

Rank #1

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 2000

Equipment - Non-Instructional - Fliers/brochure/video Rank #2 (Active)

Why is this resource required for this action?: Fliers, brochures, and videos are needed to provide marketing for the Construction Technology Department.

This medial will be provided to High school students during campus visits, and at various outreach events. Additionally updated videos will be produced which highlight the Construction Technology department and will be uploaded to the website for promotional purposes.

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Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 5000

Equipment - Instructional - Continuing education for Construction Technology Instructors (Active)

Why is this resource required for this action?: Due to developing technology in the construction field, ongoing education is required for instructors to provide updated information in class.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 2500

Equipment - Non-Instructional - Existing tool repair. (Active)

Why is this resource required for this action?: Many of the power tools in the wood shop are in need of repair and maintenance.

Items to be repaired are: Large belt sander, Spindle sander, Table Saw blade sharpening, and Panel router air system

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 500

Link Actions to District Objectives

District Objectives: 2018-2021

District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years

District Objective 2.2 - Increase the number of students who transfer to a four-year institution by 10 percent over three years

District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

District Objectives: 2015-2018

District Objectives - 2.2 - Increase the number of students who earn an associate degree or certificate annually.

District Objectives - 2.4 - Increase Career Technical Education course success rates and program completion annually.

District Objectives: 2021-2025

District Objective 2.1 - Increase the number of students who earn an associate degree or certificate (CTE and non-CTE) by 5% from 2021-2025.

District Objective 2.2 - Increase the number of students who are transfer-ready by 15% and students who transfer to four-year institutions by 10% from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.