Comprehensive Program Review Report

Program Review - Electronics

Program Summary

2020-2021

Prepared by: Jonna Schengel
What are the strengths of your area?: 1. The course has historically been noted as having high instructional value with robust content relevant to several academic areas including Engineering, Healthcare, Industrial Technology, Environmental Control Technology, & Automotive Technology.
2. Instructors have ensured academic content is current and relevant, and as a CSU transferable course, that aligns with university expectations.
3. Instructors have consistently placed emphasis on learning and student success.
4. According to the available reports the course has consistently good enrollment. As a stand-alone course, this is significant.
5. The course currently has a high-quality instructor who intends to continue teaching for the foreseeable future. This improves stability.

What improvements are needed?: 1. Though functional, the current facilities are fairly dismal.
2. Expanding to another course and possible skill certificate should be considered. Finding an instructor will be a challenge.

Describe any external opportunities or challenges.: Generating interest by students. As a stand-alone course there are no natural connections through required or even elective credit.
Overall SLO Achievement: All SLOs were assessed on schedule with updates in TracDat. As a general rule students met expectations except on the Ohm's Law SLO.
Changes Based on SLO Achievement: The previous instructor provided some suggestions for changes based upon SLO achievement. These included course sequencing and instructional lab equipment.
Overall PLO Achievement: N/A - stand alone course
Changes Based on PLO Achievement: N/A - stand alone course
Outcome cycle evaluation: The three SLOs are assessed across a staggered cycle whereupon one SLO is assessed each year. This is manageable and returns usable data to inform changes in instruction or curriculum.

Action: 2020-2021 Improve teaching and learning by providing a current and relevant learning laboratory environment.

Improve the learning environment by ensuring sufficient numbers of essential lab equipment as well as current and relevant lab equipment reflective of the expectations of a CSU transferable course.

Leave Blank: Essential for Operation
Implementation Timeline: 2020 - 2021
Leave Blank:
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Identify related course/program outcomes: Outcome #2 Given an electronic circuit, students will be able to enumerate the differences between voltage, current and resistance by using ohms law to calculate the correct values within an accuracy rate of 100%.
Outcome #3 Given various electronic circuits, students will be able to list the tools used to measure electronic values in the circuit and demonstrate their use with 100% accuracy.
Person(s) Responsible (Name and Position): Richard Peacock and Thad Russell
Rationale (With supporting data): Students confirm learning electronics is difficult when essential lab equipment is inaccessible

or unavailable.
Research by Kontra, Lyons & Fisher in 2015 confirmed the direct connection between hands-on learning and improved cognitive success. http://journals.sagepub.com/doi/10.1177/0956797615569355

Priority: High
Safety Issue: No
External Mandate: No
Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2020 - 2021 10/16/2020
Status: Continue Action Next Year
Due to COVID19, labs have been moved to an online format. Will need to move this action forward to next year to obtain relevant lab equipment.
Impact on District Objectives/Unit Outcomes (Not Required):

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