Piedmont Virginia Community College

Detailed Assessment Report

2018-2019 Electronics Technology, CSC, 221-981-15

As of: 7/16/2019 05:25 PM EST

(Includes those Action Plans with Budget Amounts marked *One-Time, Recurring, No Request.*)

Mission / Purpose

The Electronics Technology Career Studies Certificate is designed to meet the needs of regional employees with a need to gain or expand their skillsets in electronics. This two-semester Career Studies Certificate aligns with coursework in the Electronics and Computer Technology (AAS) program. Students will be able to apply credits from this program to AAS degree in order to obtain advanced technical knowledge and skills in the field. Students will engage in coursework in the fields of electricity, electronics, industrial maintenance, and mathematics in order to gather the skills necessary for employment in electronics or a related field. Successful graduates will be able to secure entry-level employment or advanced employment in fields that require technical knowledge of electronics, computer repair, power, energy, and electronic systems.

Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 6: DC AC Fundamentals

Students will study D.C. and A.C. circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze and measure electrical quantities.

Related Measures

M 8: D.C. and A.C. Fundamentals

70% of students will receive a cumulative 70% in both ETR 113 and ETR 114

Source of Evidence: Performance (recital, exhibit, science project)

Target:

70% of students will receive a cumulative 70% in both ETR 113 and ETR 114

Finding (2018-2019) - Target: Met

77% of students received a 70% or better in DC AC fundamentals.

SLO 7: Digital Circuits and Microprocessor Fundamentals

Students will describe characteristics and applications of digital logic elements including gates, counters, registers, displays and pulse generators. Students will apply microprocessor theory and applications, including internal architecture of the micro- processor, interfacing, input/output, and memory.

Related Measures

M 9: Digital Circuits and Microprocessor Fundamentals

Digital Circuits and Microprocessor Fundamentals Final project

Source of Evidence: Academic direct measure of learning - other

Target:

70% of students will receive a 70% or better in application of microprocessor theory and applications, including internal architecture of the micro- processor, interfacing, input/output, and memory.

Finding (2018-2019) - Target: Met

89% of students received a 70% or better in microprocessor theory and applications.

SLO 8: Industrial Safety-OSHA 10

SWBAT describe safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10)

Related Measures

M 10: Industrial Safety - OSHA 10

Final exam/project

Source of Evidence: Certification or licensure exam, national or state

Target:

70% of students will receive a 70% or better in Industrial Safety.

Finding (2018-2019) - Target: Met

83% of students received a 70% or better in industrial safety.

Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

O/O 1: Program Productivity

Electronics Technology will remain viable by enrolling, retaining, and graduating a sufficient number of students.

Related Measures

M 1: Enrollment Summaries

Annual enrollment records of Headcount by program.

Source of Evidence: Existing data

Target:
Trend increase in annual headcount

Finding (2018-2019) - Target: Met
In 2018-19, there were 9 students enrolled in electronics technology.

M 2: Graduate awards by curriculum
Annual report on graduate awards by curriculum.

Source of Evidence: Existing data

Target:
Trend increase in graduates of electronics technology

Finding (2018-2019) - Target: Met
There were no graduates in 2018-19. This program was recently established, increases in enrollment should result in graduates in the coming academic year.

M 3: Annual Retention by Academic Program
Report on Annual Retention by Academic Program.

Source of Evidence: Existing data

Target:
Maintain or increase annual retention rate

Finding (2018-2019) - Target: Not Met
67% of electronics technology students persisted from Fall 2018 to Spring 2019. 17% retained from Fall 2017 to Fall 2018. This is a decrease from the previous academic year.

Related Action Plans (by Established cycle, then alpha):

Increase retention rate and graduation rate
Provide students with more support and advising to graduate and persist within the electronics technology plan. Small program enrollment is impacting retention. Increases in enrollment should assist with increasing the retention rate of students.

Established in Cycle: 2018-2019
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Annual Retention by Academic Program | **Outcome/Objective:** Program Productivity

Projected Completion Date: 05/2020

O/O 2: Graduate Employment
Graduates will be employed in field the year following graduation.

Related Measures

M 4: CTE employment report
CTE employment report

Source of Evidence: Existing data

Target:
80% of electronics technology graduates will be employed in field within 6 months of graduation.

Finding (2018-2019) - Target: Not Reported This Cycle
There were no graduates from this program in 2016-17, therefore this data is not reported.

O/O 3: Success in core courses
Maximize student success in core program courses.

Related Measures

M 5: Grade Distribution Report
Core Courses grade distribution will be monitored. Core courses in electronics technology include: ETR 113, ETR 156, ETR 237, IND 103, SAF 130, ETR 114, ETR 203, ETR 238

Source of Evidence: Existing data

Target:
Core courses will maintain at least a 67% pass rate.

Finding (2018-2019) - Target: Not Reported This Cycle
Due to low enrollment, the grade distribution report is not reported this cycle. None of the listed courses had more than 5 electronics technology students enrolled.

O/O 4: Graduate Satisfaction
Graduates will be satisfied with the program overall.

Related Measures

M 7: Graduate Exit Survey
Graduate exit survey will measure students satisfaction with the electronics technology program overall.

Source of Evidence: Existing data

Target:
90% of students will be satisfied with the electronics technology program overall.

Finding (2018-2019) - Target: Not Reported This Cycle
There were no graduates in 2018-19, therefore this was not reported.

O/O 5: Monitoring Instruction at Off-Campus Locations and Distance Learning

Monitoring Instruction at Off-Campus Locations and Distance Learning

Related Measures

M 6: Monitoring Instruction at Off-Campus Locations and Distance Learning
Monitoring Instruction at Off-Campus Locations and Distance Learning

Source of Evidence: Existing data

Target:
Monitor Instruction at Off-Campus Locations and Distance Learning

Finding (2018-2019) - Target: Met
ETR distance learning and off-campus courses had a pass rate of 83%.