

Comprehensive Program Review Report



Program Review - Environment Control Technology

Program Summary

2022-2023

Prepared by: William Reilly

What are the strengths of your area?: Student Success:

For 2020-2021 the student success rate of all ECT classes increased to 95.8%. All ECT courses have high success rates at 96%. The average class size is 36.89 FTES.

Equity:

The ECT program has a diverse student population with students from various race/ethnicities. Overall Hispanic student success rate is 75.4%, white is 81.1%, Asian is 82.2%, Filipino is 85.25 success rates. This data indicates that students of all races succeed over 75% in all the courses. This data excluded EW, which did negatively impact the diversity enrollment at COS in 2020-2021.

Degrees and Certificate Awards:

The ECT program produced 1 AS degree; 28 CT/HVAC Certificates; in the last three years (2019-2021) there have been 71 awards - 7 AS degrees; 63 CT/HVAC certificates.

Employment:

The Environmental Control Technology (ECT) field (aka, Heating Ventilation, Air Conditioning [HVAC]) continues to have robust labor demand. Attached labor market information from CCCC and EMSI indicate 257 annual openings within the Central Valley South sub-region. Additionally, employment demand outpaces graduate supply by over 200. Such strong need for employees helps drive enrollment. Consequently, the program turns away several potential students due to schedule, space, and instructional limitations. Average wait list each semester is 17-20; therefore we turn numerous students away from this program each semester. The ECT area has strong ties to industry partners; for example about 17-23 employers attend a contractors BBQ that is hosted at the Tulare Annex each spring, however, we were unable to host due to COVID the last two spring semester. For the most part, graduates from last semester all have found employment in the field.

Instruction:

The full-time instructor, Bill Reilly, is a dedicated educator with thirty five years of HVAC teaching experience. He also continues to operate his own HVAC business which ensures he is continuously up-to-date with current trends, environmental issues, and industry standards. He also participates in industry-related professional development, updates, seminars, trainings, etc.

Graduates:

COS ECT graduates are heavily recruited in the immediate area due to the reputation of the program and the education provided. Graduates from Spring 2021 all found jobs in the HVAC, as far as instructor knows. Many employers are COS/HVAC graduates and prefer to hire COS graduates over other programs.

What improvements are needed?: 1. Average wait list each semester is 20-22; therefore we turn numerous students away from this program each semester. Previously this was an evening program. There is a need for an adjunct to teach an evening format/cohort for this program. A full time instructor teaching in the afternoon and evenings would allow ECT students to finish in one academic year. An adjunct would be part time and it would take students 4 semesters for the evening program.

Describe any external opportunities or challenges.: Availability of adjunct

Overall SLO Achievement: SLO assessments are complete

Changes Based on SLO Achievement: None

Overall PLO Achievement: Will be completed Jonna and Bill will work on

Changes Based on PLO Achievement: None

Outcome cycle evaluation: Outcome cycle assessments for CTE programs is every two years and works well for keeping this program up to date

Action: 2022-2023; 2021-2022 Increase enrollment in HVAC/ECT by adding evening program

Recruit, hire and train an adjunct instructor

Leave Blank:

Implementation Timeline: 2021 - 2022, 2022 - 2023

Leave Blank:

Leave Blank:

Identify related course/program outcomes: All SLO and PLO would be completed in an evening HVAC program

Person(s) Responsible (Name and Position): Jonna Schengel; Bill Reilly

Rationale (With supporting data): ECT classes fill quickly and often have a waiting list. Many students are employed before the end of the semesters. High value on these students by industry partners. The demand for an evening program is apparent but the waitlist and requests to offer this program in the evening, which is how it used to be taught.

Priority: High

Safety Issue: No

External Mandate: No

Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2022 - 2023

10/15/2022

Status: Continue Action Next Year

Unable to find adjunct instructor; will continue to work on recruiting ECT adjunct to offer evening programs

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

Resources Description

Personnel - Faculty - Adjunct (Active)

Why is this resource required for this action?:

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 20000

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

District Objectives: 2021-2025

District Objective 1.1 - The District will increase FTES 2% from 2021 to 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.

Action: 2022-2023 Ensure access to HVAC equipment during lab sessions (VTEA)

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Due to the high enrollment, more lab equipment is needed to accommodate the growth of the evening program as well as provide enough lab stations during the day program.

Leave Blank:

Implementation Timeline: 2022 - 2023

Leave Blank:

Leave Blank:

Identify related course/program outcomes: All SLO/PLO are met with access to lab

Person(s) Responsible (Name and Position): Bill Reilly

Rationale (With supporting data): Fill rates; waitlists; employer demand all are

Priority: High

Safety Issue: No

External Mandate: No

Safety/Mandate Explanation:

Resources Description

Equipment - Instructional - Trainers, lab equipment (Active)

Why is this resource required for this action?: to accommodate additional evening cohort

Notes (optional): VTEA funds can cover this equipment

Cost of Request (Nothing will be funded over the amount listed.): 15000

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

Action: 2021-2022 Improve student diagnostics through updated AC trainers

Increase student success and SLO completion through AC Trainers; computer controlled which is the industry standard.

Leave Blank:

Implementation Timeline: 2021 - 2022

Leave Blank:

Leave Blank:

Identify related course/program outcomes:

Person(s) Responsible (Name and Position): Bill Reilly

Rationale (With supporting data):

Priority: High

Safety Issue: Yes

External Mandate: No

Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2022 - 2023

10/15/2022

Status: Action Completed

AC trainers were purchased with VTEA funds and allows student success to be determined by skill checks.

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

Resources Description

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Equipment - Instructional - This purchase is VTEA eligible. (Active)

Why is this resource required for this action?: To purchase AC computer trainers; which expensive, \$30,000 for two, which will meet program needs.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 30000

Related Documents:

[ECT LMI, 2021 \(1\).xlsx](#)

[Advisory Committee Meeting March 2021 \(1\).jpg](#)

Link Actions to District Objectives

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 2.4 - 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.