

Comprehensive Program Review Report



Program Review - Environment Control Technology

Program Summary

2023-2024

Prepared by: Bill Reilly

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

For 2022-2023 data shows student success rate of all ECT classes increased to 93%. All ECT courses have high success rates at 88%-96%. The average class size is 37.27 FTES.

Equity:

The ECT program has a diverse student population with students from various race/ethnicities. Overall Hispanic student success rate is 94%, white is 95%, This data indicates that students of all races succeed over 75% in all the courses.

Degrees and Certificate Awards:

The ECT program produced 3 AS degree; 19 ECT/HVAC Certificates; in the last five years years (2018-2023) -123 total awards with 15 AS degrees; 108 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 CCCCO 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. The Tulare campus hosted a large employer event for all the Industry and Trades programs in Feb. 2023. For the most part, graduates from last year 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 2023 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?: The ECT classes fill very quickly, so that HS students rarely have access to this training.

Average age of the students is about 30 year of age.

The program is only offered during the day, which prevents some students from attending.

The program will be relocating to the new CTE building on the Tulare campus, which has very limited food options for students.

The current location at the Annex has several food options such as Starbuck, Subway, Mc Donald's, etc.

RSES - Refrigeration Service Engineers Society Journal indicates that 70,000 current technicians will retire in the next 3-4 years in the US. This indicates a huge workforce training need.

Describe any external opportunities or challenges.: None

Overall SLO Achievement: Student success indicates assessments are working and enable students to enter the workforce

Changes Based on SLO Achievement: None
Overall PLO Achievement: Program employment data indicates strong industry support.
Changes Based on PLO Achievement: None
Outcome cycle evaluation: Current assessment cycle is working.

Action: 2023-2024 Increase student access and enrollment to the ECT program

hire a full time + one adjunct to offer courses in the afternoon/evening and also make accessible to local high school students

Leave Blank:

Implementation Timeline: 2023 - 2024

Leave Blank:

Leave Blank:

Identify related course/program outcomes: Program outcome - increase enrollment and provide workforce needs

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

Rationale (With supporting data): 70,000 ECT Tech retiring nationwide will leave a large workforce need

Priority: High

Safety Issue: No

External Mandate: Yes

Safety/Mandate Explanation: High employer demand and quick fill rate of classes

Resources Description

Personnel - Faculty - Hire a full time ECT/HVAC to teach afternoon/evening courses in the new CTE building on the Tulare campus - optimize the district's investment (Active)

Why is this resource required for this action?: Increase enrollment; increase workforce demands; global warming - no one likes to be be hot or cold

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 150000

Link Actions to District Objectives

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.

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.

Action: 2023-2024; 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, 2023 - 2024

Leave Blank:

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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

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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: 2023 - 2024

09/08/2023

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): Needed to grow the ECT program.

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)

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.

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Implementation Timeline: 2022 - 2023

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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:

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Update on Action

Updates

Update Year: 2023 - 2024

09/07/2023

Status: Action Completed

Current equipment meets needs

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

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