

Program Student Learning Outcomes Assessment Summary (AY 2016-2017)

Certificate of Achievement in Refrigeration and Air Conditioning

Program Student Learning Outcomes (PSLOs)

At the completion of the **Certificate of Achievement in Refrigeration and Air Conditioning**, the student will be able to:

1. Identify safety and occupational health requirements in the air conditioning and refrigeration industry.
2. Use specified hand and power tools for refrigeration and air conditioning.
3. Perform basic hand skills in maintaining refrigeration and air conditioning systems to a given specifications.
4. Read and interpret basic electrical drawing & symbols related to refrigeration and air conditioning systems.
5. Perform basic troubleshooting and repair to residential air conditioning units and refrigerators.
6. Participate in the refrigeration and air conditioning profession.

PSLO Assessment Report Summary

What we looked at:

The Refrigeration and Air Conditioning certificate assessment focused in all the PSLO's of the program as mentioned above. Below are the results for each of the PSLOs.

What we found:

- PSLO1: Safety
7 (1 female; 6 males) out of 11 students (64%) successfully completed the VEM_113_CSLO_1 as measured by group and class discussions, quizzes and performances. Given the different types of refrigerants, safety goggles, hand gloves and manifold gauge, the students measured the standing pressure of each gasses and demonstrated safety procedures in handling high pressure refrigerants.
- PSLO2: Hand and Power Tools
10 (1 female; 9 males) out of 11 students (91%) successfully completed the VEM_113_CSLO_5 as measured by group and class discussions, quizzes and performances. Given a refrigerator, vacuum pump, manifold gauge, digital micron gauge, and toolkit, the students performed the steps in evacuating a refrigeration unit.
- PSLO3: Preventive Maintenance
5 (0 females; 5 males) out of 5 students (100%) successfully completed the VEM_114_CSLO_3 as measured by group and class discussions, performances, and quizzes. Given an air conditioning unit, hand tools and supplies, the students performed general cleaning of the unit.

- PSLO4: Electrical Wiring
11 (1 females; 10 males) out of 13 students (85%) successfully completed the VEM_105_CSLO_5 as measured by group and class performances and quizzes. Given a refrigerator, room air conditioner, multi-meter and electrical components, the students rewired the units as specified in the schematic diagram.
- PSLO5: Troubleshooting and Repair
5 (0 females; 5 males) out of 5 students (100%) successfully completed the VEM_114_CSLO_5 as measured by group and class performances and quizzes. Given a defective room air conditioner, refrigerator, recovery machine, vacuum pump, system analyzer and supplies, the students diagnosed the defects and repaired it with workmanship.
- PSLO6: Trade Participation
5 (0 females; 5 males) out of 5 students (100%) successfully completed the VEM_114_CSLO_5 as measured by group and class performances and quizzes. They were grouped by two's and assigned to perform refrigeration and air conditioning unit servicing into the campus facilities and in the community with confidence.

What we are planning to work on:

- Start RAC servicing as part of CTE skills training.
- Distribute student refrigeration toolkit in fall semester.
- Maintain the strong collaboration between the Office of Environment and Emergency Management (OEEM) of the national government and the college by following the MOU signed by both parties.
- The existing Pohnpei State refrigeration technicians association shall recognize the RAC students club.

Recommendations for students:

- Implement the BOR approved curriculum as soon as possible to produce a globally competitive worker in the field.
- To increase student success in refrigeration program, they must finish their general education courses requirement before taking major refrigeration technical courses.
- Students must focus on their technical courses and allot ample time for hands-on training.
- All students in this program should be an active member of the Refrigeration and Air Conditioning Students Club (RACSC) to promote awareness in the trade.
- The students shall attend and actively participate in all FSM-RAC association projects and activities.