

PROGRAM ASSESSMENT PLAN ~ 2014-15 through 2019-20

This document only needs to be updated when changes are made.

UNIT	WASHBURN INSTITUTE OF TECHNOLOGY
DIVISION	CONSTRUCTION
Program	Climate and Energy Control Technologies
Date Prepared	8/2014
Date Revised	1/8/16

PROGRAM MISSION

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The Mission of the Climate and Energy Control Technologies program is to deliver technical training to students in the areas of electricity, heating, residential air conditioning, refrigeration, sheet metal fabrication, direct digital controls (DDC) & commercial HVACR applications. This program provides students with industry credentialing in the areas of refrigerant handling safety, tool usage and basic commercial HVACR. Foundational skills and principles learned in this program will prepare students to work in the commercial and residential HVACR market place.

PROGRAM STUDENT LEARNING OUTCOMES (PSLO)

If the program has more than 6 PSLO, hit "Tab" in the last cell to add another row. Cells will expand to accommodate text.

Upon completion of the program students will be able to:

PSLO 1	Apply knowledge of electrical fundamentals
PSLO 2	Apply knowledge of Mechanical code
PSLO 3	Apply knowledge of HVACR theory
PSLO 4	Demonstrate proper tool use
PSLO 5	Demonstrate industry expectations for safety and professionalism
PSLO 6	Apply knowledge of control theory

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CURRICULUM MAP (Alignment)

List all courses required for program majors and indicate, where applicable, (using the following key) the PSLO with which they are associated.

T = Taught

X = Taught and Assessed

A = Assessed

If the program has more than 6 PSLO, "Copy and Paste" rows from this table below the existing table, beginning with the row numbering the PSLO.

Required Courses	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5	PSLO 6
CEC105					X	
CEC110					X	
CEC115	X			X	X	X
CEC116	X			A	A	
CEC120	A		X	A	A	T
CEC121		X		X	A	
CEC125	A			A	A	
CEC135		T		X	A	
CEC200			T		A	
CEC205		T	X	X	X	
CEC210					A	
CEC215	X		A	A	A	
CEC225	A			A	A	
CEC230				A	A	X
CEC235	A	A	A	A	A	A

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ASSESSMENT MEASURES (Method)

Indicate (mark with an X) the type of assessment used to evaluate each PSLO.

Check as many boxes as apply.

Programs should use at least 2 direct measures for each PSLO.

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	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5	PSLO 6
DIRECT						
Portfolio						
Performance Assessment	X	X	X	X		X
Performance Assessment (Off campus experience – Clinical, Internship, Practicum, etc.)						
Professional Credentialing Exam	X		X		X	X
Major Field Test or National Exam						
Course Embedded Assignment	X	X	X	X	X	X
Project Evaluation	X	X				
Course Grades	X	X	X	X	X	X
Other (Describe)						
INDIRECT						
Surveys						
Exit Interviews/Focus Groups						
Other (Describe)						

THRESHOLD OF STUDENT SUCCESS

For each PSLO, list each measure separately and indicate the threshold of student achievement considered acceptable.

(example: 75% of students will receive B or better) - see Assessment Plan Guide for additional instructions.

Hit :Tab" in the last cell to add another row. Cells will expand to accommodate text.

PSLO	MEASURE	THRESHOLD
1	Students are required to read and interpret Manufacturer diagrams, create electrical diagrams and explain how electricity is used to control the systems.	75% of student should be able to earn a minimum of 78% on the section finals that pertain to schematic diagram reading, order of operation, and troubleshooting. This pertains to the written portion and the practical
2	Students are required to take and pass mechanical code. They are also expected to demonstrate understanding of this code when working on systems in the shop.	75% of students will be able to earn a minimum of 78% on their section final for Heating System Fundamentals II. And also 78% on the code portion of their program final.
3	Students are expected to explain the refrigeration system operations and heat theory.	75% of students should earn a minimum of 78% on the section finals for HVAC fundamentals, Heating System fundamentals, Intro to Mechanical Refrigeration, Heat Pump and Commercial HVAC lab.

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4	Students are required to demonstrate competency with tools specific to the HVAC trade	75% of students should be able to earn a minimum of 78% on practical section finals demonstrating use of specialized tools and equipment.
5	Students are expected to abide by the safety expectations for our industry while working in our shop. They must also demonstrate knowledge of industry standards on written tests.	No more than 20% of students will drop a grade level according to our attendance and professionalism policies. 80% of students will earn their OSHA 10 Certification
6	Students are required to engage in troubleshooting scenarios that cause them to think critically and apply what they have learned about control theory.	75% of students will earn a minimum of 78% on their BAS 1 Certification, and on practical assessment.

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DATA COLLECTION CALENDAR

Indicate how often assessment data are collected for each PSLO.

S=every semester

Y=every year

2=every other year

3=every 3 years, (etc.)

O-Other (please explain)

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	Frequency of Data Collection
PSLO 1	S
PSLO 2	S
PSLO 3	S
PSLO 4	S
PSLO 5	S
PSLO 6	S

ANALYSIS AND REPORTING CALENDAR

Indicate (mark with an X) the years in which each PSLO was/will be analyzed and reported.

Cycle will repeat after Year 6.

If the program has more than 6 PSLO, "Copy and Paste" rows from this table below the existing table, beginning with the row numbering the PSLO.

	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5	PSLO 6
Year 1/2014-15	X	X	X	X	X	X
Year 2/2015-16	X	X	X	X	X	X
Year 3/2016-17	X	X	X	X	X	X
Year 4/2017-18	X	X	X	X	X	X
Year 5/2018-19	X	X	X	X	X	X
Year 6/2019-20	X	X	X	X	X	X

If field experiences are a significant part of the program, explicitly address how validity and reliability of the evaluation instrument is ensured.

Cell will expand to accommodate text.

Field Experience is not a significant part of the program.

STAKEHOLDER INVOLVEMENT

Describe how stakeholders (faculty, students, alumni, advisory boards, community, etc.) are involved in the development, implementation, periodic review and continuous improvement of the Assessment Plan.

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Instructors review and update the assessment plan each semester

Industry advisory board members help create the Program outcomes based on their needs

Student feedback from completed courses is used to fine tune assessments and course layout.

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PROGRAM ASSESSMENT PLAN REVIEW CYCLE

Indicate (mark with an X in column 2) the year(s) in which this Program Assessment Plan will be reviewed and indicate in column 3 (when applicable) when changes are made and addressed in the appropriate year's annual report.

Cycle repeats after Year 6.

	Program Assessment Plan Review	Were changes made and addressed in the Annual Report? <u>Yes</u> or <u>No</u> (update when applicable)
Year 1/2014-15	X	NO changes
Year 2/2015-16	X	Changes Made: Revised program outcomes, Course offerings adjusted or courses removed from the certificate program.
Year 3/2016-17		
Year 4/2017-18		
Year 5/2018-19		
Year 6/2019-20		