

# HVAC-R (Climate Control) Certificate

## Engineering Technologies Division

### For Program Questions:

Dan Burklo  
Dean of Engineering Technologies  
(419) 267-1394  
dburklo@northweststate.edu

### For Admissions Questions:

NSCC Admissions Office  
(419) 267-1320  
admissions@northweststate.edu



www.northweststate.edu

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## HVAC-R (Climate Control) Certificate

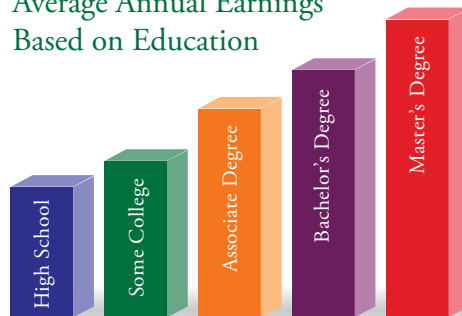
HVAC-R: Heating, Ventilating, Air Conditioning, and Refrigeration, as a technical discipline, has made its transition to the “high-tech” field. Modern environmental control equipment uses advanced controls involving pneumatic, electro-mechanical and direct digital control technologies. Today, common HVAC-R applications include the use of computers and computer network interfaces to facilitate building/space climate control and monitoring. Presently, manpower shortages exist for qualified personnel (see <http://www.mepatwork.com> for additional information). Men and women wanting to enter this field must understand these advanced technologies, their controls and communications networks if they are to be successful in this changing field.

### Career Outlook

A wide variety of employment possibilities exist for those individuals who have training in the climate control field. HVAC-R installers and service technicians are always needed to support companies involved in product sales and service. These skilled trades persons work in residential, commercial and industrial settings keeping related equipment operational throughout the climate seasons. Refrigeration journeymen work in commercial and industrial settings providing support for the food industry. Air balance specialists work with environmental engineers to test and adjust newly installed and existing HVAC-R systems. Systems integrators unify various sub-systems involving the HVAC-R and fire control-life safety technologies under one common control.

### Education Pays

Average Annual Earnings  
Based on Education



2011-2012

Based on data from the Bureau of Labor Statistics

# Program Sequence

<i>First Semester</i>		<i>Credits</i>
+ INT120	HVAC-R I	3
+ IND120	Industrial Electricity I	3
+ IND131	Industrial Pipefitting	3
MET100	Introduction to Engineering Technology	2
+ MET110	Print Reading and Sketching	3
+ AET100	Introduction to Alternative Energy	3
		17
<i>Second Semester</i>		
+ INT220	HVAC-R II	3
+ INT221	HVAC-R III	3
+ IND121	Industrial Electricity II	3
+ AET110	Energy Audit	3
+ AET140	Geothermal	4
	Communications Elective	3
		19
<i>Total Program Credit Hours</i>		<i>36</i>

Must be proficient in MTH080

+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.

*Course curriculum is subject to change. Please consult with an Academic Advisor for up-to-date information.*



# HVAC-R (Climate Control) Certificate

## Department of Engineering Technology

### **PROGRAM NAME & LENGTH**

**Name of Program:** HVAC-R

**Level of Program:** Certificate

**Program Length:** 3 Semesters

### **RELATED OCCUPATIONS**

**U.S. Department of Labor's Standard Occupational Classification (SOC) code:**

49-9021 Heating, Air Conditioning & Refrigeration Mechanics and Installers

**Link(s) to the U.S. Department of Labor's O\*Net Occupational Profiles:**

<http://www.onetonline.org/link/summary/49-9021.00>

### **COST:**

**Total Tuition:** \$4,896

**Fees:** \$270

**Total Est. Costs for Books and Supplies:** \$510

### **DEBT AT PROGRAM COMPLETION**

Number of students completing the program between July 1, 2010 and June 30, 2011

**Number of 2010-2011 Graduates:** 4 Students

For all Students completing program, the median cumulative debt for:

**Federal Student Debt:** Not Disclosed

### **PROGRAM COMPLETION IN NORMAL TIME**

**Normal Time in Months to Complete Program:** 12 Months