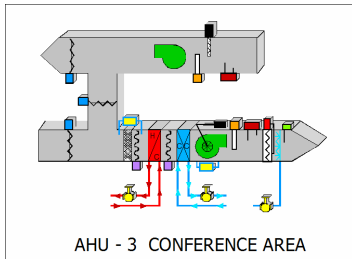


# HVAC-R (Climate Control) Certificate

## Engineering Technology

### HVAC-R (Climate Control) Certificate



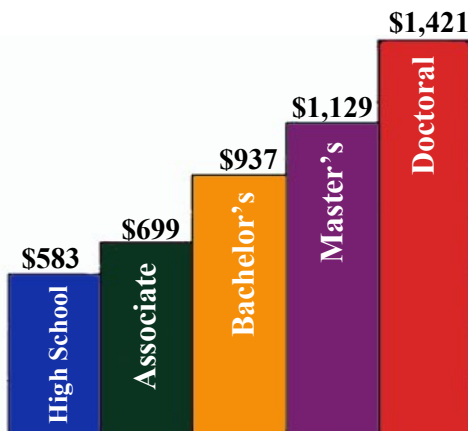
HVACR: Heating, Ventilating, Air Conditioning, and Refrigeration, as a technical discipline, has made its transition to the “high-tech” field. Modern environmental control equipment presently use advanced controls involving pneumatic, electro-mechanical and direct digital control technologies. Today, 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 Options

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 tradespersons 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 Weekly Earnings Based on Educational Attainment



Based on data from the Bureau of Labor Statistics



### Program Sequence

2011-2013

#### First Semester

+	INT120	HVACR I	3
+	IND120	Industrial Electricity I	3
+	IND131	Industrial Pipefitting	3
+	MET100	Intro to Engineering Technology	2
+	MET110	Print Reading & Sketching	3
+	AET100	Intro to Alternative Energy	3
			<u>17</u>

#### Second Semester

+	INT220	HVACR II	3
+	INT221	HVACR III	3
+	IND121	Industrial Electricity II	3
+	AET110	Energy Audit	3
+	AET140	Geothermal	4
		Communications Elective	3
			<u>19</u>

+ 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

### Contact Information

**For Program Information, Contact:**

Dan Burklo, Dean  
Engineering Technologies  
(419) 267-1273  
d Burklo@northweststate.edu

**For Admissions Information, Contact:**

Admissions Office

[www.northweststate.edu](http://www.northweststate.edu)

# Northwest State Community College

## Dave VonDeylen, Class of 1981

Future Northwest State Students:

I, like many others, attended Northwest State because tuition was affordable and the campus was close to home. While attending Northwest State, my instructors were extremely helpful. They guided me to enroll in courses that appealed to my interests and talents, and really went the extra mile to ensure my success in their programs.

My advisors also were able to help me gain employment through a Co-op program that gave me a chance to get hands-on training outside of the classroom and begin networking with other professionals in the area. Now, many years later, I know the experience I gained and the local contacts I made helped me build my own company, Alex Products, Inc.

Alex Products began in a small, one room shop and, in 22 years, has grown into a large plant with four locations in the five-county area. Not only are we well known for our quality of service, we are also recognized for offering the highest level of career preparation for our employees. As a matter of fact, out of our 1,000 employees, more than 20% have received some level of training from Northwest State Community College.

Whether you decide to major in Engineering, Business, Nursing or any other degree at Northwest State Community College, you are building a foundation to a successful future. Not only will the education you earn at Northwest State prepare you for the workforce, it will give you the confidence to fill a professional role right out of college. The confidence that employers, like me, look for in their employees.

Best of luck in your education as well as your career.

Dave VonDeylen

## Numbers to Call

**Admissions:** (419) 267-1320

**Financial Aid:** (419) 267-1333

**Main Campus:** (419) 267-5511

**Or Visit Our Web Site at**

[www.northweststate.edu](http://www.northweststate.edu)



The Plastic Engineering Technology program at Northwest State Community College is an incredible program to be involved in. There are great opportunities for jobs in the plastic engineering field after graduation. It is a key component in trying to get your foot in the door at a plastics company.

Another option that the Plastic Engineering Degree offers is transferring to a four year school. I had the opportunity to transfer to Ferris State University to earn a bachelor's degree in plastic engineering. The

knowledge I gained at Northwest State made it a very easy transition. If you are interested in a position in plastics, or want to continue your education, Northwest State is a great choice.

- Brian Brown, Class of 2006



I graduated from Northwest State with an engineering technology degree and the confidence that I was well-prepared to enter the job field. It was that confidence that helped me earn a position at Campbell Soup working as a technology trouble shooter.

Today, I am making more money than I ever could have without a college degree. Northwest State Community College transformed my life.

- Mike Kappen, Class of 2003



## Northwest State Service Area



It Makes  
You Think!