UNOH UNIVERSITY OF NORTHWESTERN OHIO

Articulation Application Form

College of Applied Technologies

Residential and Commercial HVAC/R Program

Enrollment application must be on file for this form to be processed.
Articulation agreement must also be in place.

Section I	
Student Name:	**Date:**
UNOH Start Date:	**UNOH Student Number:**
High School/Career Center:	
School Address:	
City/State/ZIP:	
School Phone Number:	**Graduation Date from High School:**
School Contact Person:	

Section II and course information: To be completed by high school personnel

The above student has demonstrated proficiency by receiving a "B" or better for both years in the content for the course listed below. Please explain how the student received course information Ex: worksheets, testing, hands-on tasks etc.

_____

_____

This institution has taught the attached required UNOH learning outcomes

Instructor Signature:_____ Date: _____

Administrator Signature: _____ Date: _____

I meet the UNOH learning outcomes (attached) required to receive articulation credit.

Student Signature:_____ Date: _____

The below course has been reviewed by the above signatures and is recommended for proficiency credit. Credit will be recorded on the student's transcript showing the credit given for the course.			
Heating, Ventilation, Air-Conditioning and Refrigeration Course Articulation			
UNOH Course Number	**UNOH Course Title**	**H. S. Course/Program Title** (As it will appear on transcript)	**Final Grade**
HV110 (Commercial)	**Services and Procedures I (6 credit hours)**		

University of Northwestern Ohio, 1441 N. Cable Rd., Lima, OH 45805
Office Phone: 419-998-8889 Fax: 419-998-3139

ARTICULATED COURSES, CREDITS AND REQUIREMENTS

Courses & Credits	Requirements
HVAC/R **HV110 Service and Procedures I (6 credits)**	**Graduate of a two-year HVAC/R program with a B or better in both years of HVAC/R courses and meet the learning outocmes.**

CATALOG DESCRIPTIONS

Residential Commercial HVAC / R Course:

HV110 SERVICE AND PROCEDURES - I

The fundamentals of refrigeration operation are discussed, including heat transfer, types of heat, and pressure temperature relationships. Also covered are refrigerant, identification, system recovery, leak testing, evacuation, and charging. Other topics include copper tubing, soft solder, and brazing. Students will also learn proper safety procedures, all trade-related tools, and customer relations, along with employability skills.

UNOH Learning Outcomes HV 110 Services and Procedures - I

Students are required to meet the following learning outcomes to receive articulation for HV 110, Service and Procedures – I at the University of Northwestern Ohio.

Knowledge of a basic refrigeration cycle is required. With the ability to draw it, explain its components and understand how it works.

1. Explain Superheat and how to take it.
2. Explain Sub-cooling and how to take it.
3. Understand the pressure temperature chart & how to read it.
4. Basic knowledge of refrigerants and how they react to pressure & temperature.
5. Understand the terms and differences of recovery, recycling, and reclamation as it pertains to refrigerants.
6. Understand refrigeration manifold gauges and how to use them on a unit.
7. Understand refrigeration service valves.
8. Use a recovery machine properly on a refrigeration unit.
9. Evacuate and leak test a refrigeration unit.
10. Properly charge a refrigeration unit.
11. Basic knowledge of hand tools & fasteners.
12. Basic knowledge of shop safety.
13. Braze and solder copper tubing.

Please return this form to:
University of Northwestern Ohio
Attn: Shawnna Roob, Admissions
1441 North Cable Road
Lima, OH 45805