

Air Conditioning, Heating, & Refrigeration Technology (D35100)

Official Program Description registered with NC Community College System:

The Air Conditioning, Heating, and Refrigeration Technology Curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.

Graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

Program Learning Outcomes

Upon successful completion of the Air Conditioning, Heating and Refrigeration Technology program of study the student will be able to:

- Apply the fundamental and advanced principles of air conditioning, heating, and refrigeration technology in troubleshooting, replacing, servicing, installing, and repairing equipment and systems.
- Recognize and utilize the appropriate tools, test instruments, and equipment to troubleshoot and effect desired results.
- Determine optimal approaches to ascertain most desired means, methods, and end results in interfacing and interacting with HVACR industry customers.
- Demonstrate logical reasoning and enhanced problem solving abilities by troubleshooting and diagnosing faults in HVACR equipment and systems.
- Construct and operate basic and advanced HVACR refrigerant electrical and air flow circuits and systems.

Diploma Awarded

A diploma in the Air Conditioning, Heating, and Refrigeration Technology program is awarded by the College upon completion of this program.

Note: Students are required to purchase tools, test equipment, and pay a \$25 EPA Refrigerant Certification Fee. Also, some field trips and special meetings require fees.

For More Information

The Air Conditioning, Heating, and Refrigeration Technology program is in the Applied Technology Division. For more information, call (919) 735-5151, ext. 737 or 357 or visit us at our web site at <http://www.waynecc.edu>.

Admissions

Admission in the program requires a placement test in reading, math, and computer skills to determine entry-level courses that match individual needs.

First Step to Enroll:

Call the Admissions and Records Office at (919) 735-5151, ext. 238.

AHR 160	Refrigerant Certification	1	1
BPR 135	Schematics & Diagrams	2	2
ENG 102	Applied Communications II	3	3
			19

SECOND SEMESTER

AHR 112	Heating Technology	6	4
AHR 114	Heat Pump Technology.....	6	4
AHR 130	HVAC Controls.....	4	3
AHR 211	Residential System Design.....	4	3
MAT 101	Applied Mathematics I	4	3
WLD 112	Basic Welding Processes	4	2
			19

Total Credit Hours 38

FIRST SEMESTER

	Contact Hours	Semester Credit Hours
ACA 111	College Student Success.....	1 1
AHR 110	Intro to Refrigeration	8 5
AHR 111	HVACR Electricity	4 3
AHR 113	Comfort Cooling.....	6 4