

HEATING, VENTILATION, AIR CONDITIONING (HVAC)

HVAC 101 Foundations of HVAC 4 Credit Hour(s)

Prerequisite: CRFT 101 (may be taken concurrently)

Foundations of HVAC is a practical course combining lecture and hands-on instruction. Topics include: Introduction to HVAC; Trade Math; Copper and Plastic Piping Practices; Soldering and Brazing; Basic Carbon Steel Piping Practices, Basic Electricity; Introduction to Cooling; Introduction to Heating; Air Distribution Systems.

Offered: Resident

HVAC 201 Intermediate HVAC 4 Credit Hour(s)

Prerequisite: HVAC 101 and CRFT 101

Intermediate HVAC is a practical course combining lecture and hands-on instruction. Topics include: Commercial Airside Systems; Chimneys, Vents and Flues; Introduction to Hydronic Systems; Air Quality Equipment; Leak Detection, Evacuation, Recovery and Charging; Alternating Current; Heat Pumps; Basic Maintenance Practices; Compressors, Refrigerants, and Oils, Metering Devices; Sheet Metal Duct Systems; Fiberglass and Flexible Duct Systems.

Offered: Resident

HVAC 301 Advanced HVAC 4 Credit Hour(s)

Prerequisite: HVAC 201 and CRFT 101

Advanced HVAC is a practical course combining lecture and hands-on instruction. Topics include: Fasteners, Hardware, and Wiring terminations; Control circuit and Motor Troubleshooting, Troubleshooting cooling; troubleshooting heat pumps, troubleshooting gas heating, troubleshooting oil heating, troubleshooting accessories, zoning, ductless, and variable refrigerant flow systems, commercial hydronic systems, steam systems, retail refrigeration systems, and customer relations.

Offered: Resident

HVAC 401 Special Topics in HVAC 4 Credit Hour(s)

Prerequisite: HVAC 301 and CRFT 101

Special Topics in HVAC is a practical course combining lecture and hands-on instruction. Topics include: Water Treatment; Indoor Air Quality; Energy Conservation Equipment; Building Management Systems; System Air Balancing; System Startup and Shutdown; Construction Drawings and Specifications; Heating and Cooling System Design; Commercial and Industrial Refrigeration Systems; Alternative Heating and Cooling Systems Systems; and Fundamentals of Crew Leadership.

Offered: Resident