

HVAC Residential Service Technician Certificate

The postsecondary certificate program is designed to prepare you for the basic job skills needed to service residential heating and air conditioning equipment. Students who elect the residential service certificate option learn the theory of operation and how to service, repair and design gas furnaces, central air conditioners, heat pumps and rooftop air conditioning systems. This knowledge is reinforced by working on actual equipment in the laboratory. Completion of this program will allow the student to seek employment as a residential maintenance and service technician in the heating/air conditioning trade.

Suggested/Sample Course Sequence

The sequence taken by the student may vary depending on prerequisites, course availability, and personal/ professional responsibilities.

(Major Code 6260; State CIP Code 47.0201)

- Gainful Employment -HVAC (<http://www.jccc.edu/hvac/ge-hvac.html>)
- HVAC (<http://www.jccc.edu/hvac>)

Fall Semester

ENGL 121	Composition I*	3
HVAC 121	Basic Principles of HVAC*	4
HVAC 123	Electromechanical Systems	4
MATH 115	Elementary Algebra*	3
Total Hours		14

Spring Semester

HVAC 150	Refrigerant Management and Certification	1
HVAC 124	Equipment Selection and Duct Design*	4
HVAC 137	Residential Systems: Air Conditioning*	4
HVAC 235	Residential Heat Pump Systems*	4
Total Hours		13

Fall Semester

Technical Electives (see below)		3-4
HVAC 167	Sheet Metal Layout and Fabrication	3
HVAC 155	Workplace Skills	1
HVAC 127	Residential Systems: Heating*	4
Total Hours		11-12

Technical Electives

HVAC 125	Energy Alternatives	2
HVAC 143	Reading Blueprints and Ladder Diagrams	2
HVAC 221	Commercial Systems: Air Conditioning*	4
HVAC 223	Commercial Systems: Heating*	4
HVAC 231	HVAC Rooftop Units*	3
HVAC 271	HVAC Internship*	3
HVAC 291	Independent Study*	1-7
CPCA 105	Introduction to Personal Computers: Windows	1
INDT 125	Industrial Safety/OSHA 30	3

Total Program Hours: 38-39