

Heating, Ventilation, and Air Conditioning (HVAC) Technology AAS

Modern Heating, Ventilation and Air Conditioning (HVAC) operations depend on well-trained installation and service technicians. Government researchers say graduates of training programs that emphasize hands-on experience will have a definite advantage when seeking employment in heating, ventilation and air conditioning technology. JCCC provides you the opportunity to work on actual equipment while pursuing a degree or a certificate program.

The 63-credit-hour associate of applied science degree program focuses on developing an awareness of basic mathematical and scientific principles of HVAC. The curriculum was developed with the manner by which these principles affect the control of temperature and the quality of air, design, testing, installation and development of heating and cooling systems.

If you select the AAS degree, you will learn the theory of operation as well as installation, duct design, service and repair of gas and electric furnaces, heat pumps and central air conditioners. The HVAC program at JCCC is nationally accreditation from the Partnership for Air-Conditioning, Heating, Refrigeration Accreditation (PAHRA), and you'll benefit when you tell prospective employers you completed a PAHRA-accredited program.

The requirements of the Heating, Ventilation and Air Conditioning (HVAC) AAS program will consist of four semesters. The first two semesters of the HVAC program will be focusing on the student's completing their HVAC certificate which consist of 33 hours. Afterwards, the HVAC students will complete their third and fourth semesters will consist of additional 15 hours of HVAC classes and 15 hours of general education classes.

(Major Code 3020; CIP Code 47.0201)

Heating, Ventilation and Air Conditioning Technology Program web page (<http://www.jccc.edu/academics/credit/hvac/>)

Associate of Applied Science

Fall Semester

Code	Title	Hours
CMGT 100	Industrial Safety/OSHA-30	3
HVAC 105	HVAC Fundamentals*	4
HVAC 110	Electrical Fundamentals*	4
HVAC 136	Heating System Fundamentals*	3
HVAC 167	Sheet Metal Layout and Fabrication*	3
Total Hours		17

Spring Semester

Code	Title	Hours
COMS 155	Workplace Skills	1
HVAC 164	EPA 608 Refrigerant Management*	1
HVAC 188	Load Calculation and Duct Design*	3
HVAC 202	Cooling Systems*	4
HVAC 251	HVAC Installation and Start-up Procedures*	4
HVAC 278	Advanced Electrical Systems*	3
Total Hours		16

Summer Semester

Code	Title	Hours
HVAC 231	HVAC Rooftop Units*	3
Total Hours		3

Fall Semester

Code	Title	Hours
ENGL 121	Composition I*	3
HVAC 165	410-A Refrigerant Management*	1
HVAC 275	HVAC Code Review*	3

PLUM 110	Introduction to Plumbing Systems	3
Social and Behavioral and Sciences Elective ^		3
Total Hours		13

Spring Semester

Code	Title	Hours
HVAC 220	HVAC Trade Certification Review*	2
HVAC 280	HVAC Internship*	3
MATH 120	Business Mathematics* (or higher)	3
Communications Elective ^		3
Humanities Elective		3
Total Hours		14

Total Program Hours: 63

* This course has registration requirements.

^ See all AAS general education electives (<https://catalog.jccc.edu/archives/2024-25/degree requirements/associate-applied-science/>)