

# 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 61-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 32 hours. Afterwards, the HVAC students will complete their third and fourth semesters will consist of additional 14 hours of HVAC classes and 15 hours of general education classes.

(Major Code 3020; State CIP Code 47.0201)

## Associate of Applied Science

### First Semester

HVAC 105	HVAC Fundamentals	4
HVAC 110	Electrical Fundamentals	4
HVAC 136	Heating System Fundamentals	3
HVAC 164	EPA 608 Refrigerant Management	1
HVAC 167	Sheet Metal Layout and Fabrication	3
INDT 155	Workplace Skills	1
Total Hours		16

### Second Semester

INDT 125	Industrial Safety/OSHA 30	3
HVAC 188	Load Calculation and Duct Design	3
HVAC 201	Cooling Systems*	3
HVAC 278	Advanced Electrical Systems*	3
HVAC 250	HVAC Installation and Start-up Procedures*	3
HVAC 280	HVAC Internship*	3

Note: If the 1 hour internship for certificate was completed, students can take a 2 hour internship to complete the 3 hour course requirement.

Total Hours		18
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### Third Semester

ENGL 121	Composition I*	3
HVAC 231	HVAC Rooftop Units*	3
HVAC 210	Plumbing Fundamentals*	3
Social Science and/or Economics Elective ^		3
Humanities Elective ^		3
Total Hours		15

^ See all AAS general education electives (<http://catalog.jccc.edu/archives/2018-2019/degree/requirements/associate-applied-science>)

### Fourth Semester

HVAC 165	410-A Refrigerant Management	1
HVAC 220	HVAC Trade Certification Review*	2

HVAC 275	HVAC Code Review*	3
MATH 120	Business Mathematics* (or higher)	3
Communications Elective ^		3
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Total Hours		12

^ See all AAS general education electives (<http://catalog.jccc.edu/archives/2018-2019/degreerequirements/associate-applied-science>)

**Total Program Hours: 61**