

# Heating, Ventilation, Air Conditioning & Refrigeration

Offered at MCC-Business & Technology

This program offers degree and certificate options leading to heating, ventilation and air conditioning careers.

A.A.S. HVAC .....	62-64 Credits
Energy Efficiency Certificate .....	41 Credits
HVAC Advanced Certificate .....	40-42 Credits
HVAC Certificate .....	24 Credits

## A.A.S. Heating, Ventilation and Air Conditioning

201805 Revised 11/2018 (Fall 2019)

General Education Requirements	Credits	Semester Taken	Prerequisites
COLL 100 First Year Seminar	1		
ENGL 101 Composition and Reading I	3		ENGL 90 with a minimum grade of S or appropriate placement score
HIST 120 United States History to 1865 <i>or</i> HIST 121 United States History Since 1865 <i>or</i> POLS 135 Introduction to Political Science <i>or</i> POLS 136 Introduction to U.S. National Politics <i>or</i> POLS 137 Introduction to State and Local Politics	3		
<b>Option 1:</b> MATH 103 Technical Mathematics I or MATH 120 College Algebra and MATH 104 Technical Mathematics II or MATH 130 Trigonometry <b>Option 2:</b> MATH 150 PreCalculus or higher	5-6		MATH 31 with a grade of S or appropriate placement (MATH 103 and MATH 104) MATH 95 with a grade of C or appropriate placement (MATH 120 and MATH 150) MATH 120 or appropriate placement score (MATH 130)
COMM 100 Fundamentals of Speech	3		ENGL 90 with a minimum grade of S or appropriate placement score.
Any course numbered 100 or higher from the following disciplines: ART, ANTH, COMM, ECON, ENGL, Foreign Language, GEOG (except 104 or 110 and GIS courses), HIST, HUMN, MUSI, PHIL, POLS, PSYC, SIGN, SOSOC, SOCI, THEA	4-5		See Courses section of this catalog for individual course prerequisites.
<b>Minimum Total General Education Credit Hours</b>	<b>18</b>		
<b>Specific Program Requirements</b>			
EHSS 111 Intro to Health & Safety for General Industry <i>or</i> EHSS 112 Intro to Health & Safety for Construction	1		
HVAC 109 Electricity for HVAC/R Technicians	4		
HVAC 111 Principles of Heating, Ventilation and Air Conditioning	3		
HVAC 120 Fundamentals of Refrigeration	4		
HVAC 135 Residential Heating and Air Conditioning I	4		HVAC 109 (or take concurrently), HVAC 111, 120
HVAC 136 Residential Heating and Air Conditioning II	4		HVAC 135
HVAC 221 Commercial Refrigeration	4		HVAC 109, 120, 136
HVAC 230 Sheet Metal Layout and Fabrication	4		
HVAC 235 Systems Installation	3		HVAC 136 and 230
HVAC 240 Geo-Thermal & Air Source Heat Pumps	3		HVAC 136
INTE 224 Energy Management, Efficiency and Conservation	3		
6 hours from the following: HVAC/INTE/WELD electives	6		
<b>Total Credit Hours Required</b>	<b>62-64</b>		