

Last Name

First Name

**JEFFERSON COLLEGE**  
**ASSOCIATE OF APPLIED SCIENCE**  
**Degree Plan**  
**HEATING, REFRIGERATION, AND AIR CONDITIONING TECHNOLOGY**

Effective 2020-2021.

COURSE TITLES	COURSE NUMBERS	DONE	NOW	NEED	INSTALLER CERTIFICATE	TECHNICIAN CERTIFICATE	DEGREE
Electricity for HVAC (5)	HRA101				X	X	X
Principles of Refrigeration (5)	HRA105				X	X	X
Refrigeration and A/C Mechanical Systems (5)	HRA125				X	X	X
Intro to International Mechanical Code (3)	HRA135					X	X
Piping Design, Sizing, & Installation for HRA (2)	HRA145				X	X	X
Customer Relations and Record Keeping (2)	HRA150				X	X	X
Duct, Envelope Testing, and Leakage Detection (3)	HRA155					X	X
Sheet Metal Design, Sizing & Installation for HRA (3)	HRA160				X	X	X
Residential Gas Heating Systems (4)	HRA205					X	X
Electric and Hydronic Heat (2)	HRA210					X	X
Residential Air Conditioning Systems (3)	HRA216					X	X
Advanced Electricity for HVAC (3)	HRA230					X	X
Heat Pumps and Mini-Splits (3)	HRA240					X	X
Commercial Refrigeration Systems (5)	HRA249					X	X
Technical Internship (1-3) optional	INT191,192, or193						
Group I. <i>Communications</i> (3)	ENG101(H)						X
Group II. <i>Humanities/Communications</i> (3)							X
Group III. <i>Social/Behavioral Sciences</i> (3)							X
<i>Civics</i> (3)							X
<i>MO Higher Ed Civics Exam</i>	PSC001						X
Group IV. <i>Math and/or Science</i> (3)							X
<i>Industrial Math</i> (3)	MTH105*					X	X
Group V. <i>Computer Literacy</i> (3)							X
Group VI. <i>First Year Experience</i> (1-3)					X	X	X
Student Signature/Date							
Advisor Signature/Date							

Total Credit Hours:

23-25

52-54

70-72

**GENERAL EDUCATION & INSTITUTIONAL REQUIREMENTS**

**Group I. Communications 3 hrs.**  
 ENG101(H) English Comp. I **required**

**Group II. Humanities/Communications 3 hrs.**  
[See MOTR CORE 42 list for choices](#)  
 Cannot use Performance classes

**Group III. Social/Behavioral Sciences 6 hrs.**  
 3 hours must fulfill Civics requirement  
[See MOTR CORE 42 list for choices](#)

**Group IV. Math and/or Science 6 hrs.**  
 MTH105 Industrial Math\* **required**  
 MGT103\*;MTH110\*,128\*;  
[See MOTR CORE 42 list for additional choices](#)

**Group V. Computer Literacy 3 hrs.**  
 CIS125\*; EDU205\*

**Group VI. First Year Experience 1-3 hrs.**  
 COL100\*, COL101\*, or COL136\* **required**

\*These courses listed in the General Education and Institutional Requirements are not part of the MOTR CORE 42 general education program, and are not guaranteed to transfer to other institutions.

Revised March 2020