

HEATING, REFRIGERATION, & AIR CONDITIONING TECHNOLOGY ACADEMIC GUIDE 2023-2024

Two-Year Technician Certificate Plan

The Academic Plan is a semester-by-semester plan for the full-time student. Part-time students should work with an advisor to customize the map to fit individual needs.

ACADEMIC PLAN		NOTES	
Fall 1st Year	Cr Hrs	Semester 1	
COL101 Introduction to College	1	COL101 and Reading Proficiency are pre- regs for some next semester course work	
HRA101 Electricity for HVAC	5	HRA101 with a grade of "C" or better is a pre-req for some next semester course work	
HRA105 Principles of Refrigeration	5	HRA105 with a grade of "C" or better is a pre-req for some next semester course work	
MTH105 Industrial Math	3		
Total Hours	14		
Spring 1st Year		Semester 2	
HRA125 Refrigeration and A/C Mechanical Systems	5	EPA certification are a required pre-req for	
HRA160 Sheet Metal Sizing, Design, and Install	3		
HRA145 Piping Design, Sizing, & Installation for HRA	3		
HRA150 Customer Relations & Record Keeping	2		
Total Hours	13	1	
Fall 2 nd Year		Semester 3	
HRA205 Residential Gas Heating System	4		
HRA216 Residential Air-Conditioning Systems	3		
HRA230 Advanced Electricity for HVAC	3	1	
HRA240 Heat Pumps and Mini Splits	3		
Total Hours	13		
Spring 2 nd Year		Semester 4	
HRA249 Commercial Refrigeration Systems	5		
HRA155 Duct, Envelope Testing and Leakage Detection	2		
HRA135 Introduction to International Mechanical Code	3		
HRA210 Electric and Hydronic Heat	2		
Total Hours	12		



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Program Description:

The Associate of Applied Science degree or certificate prepare students for employment as installers or technicians in the rapidly growing and increasingly technical field of Heating, Refrigeration, and Air Conditioning.

Admission Requirements:

There are no specific admission requirements for this program. HRA coursework requires reading and a level of math proficiency. Certain general education coursework requires specific measures for placement. Please consult with a Jefferson College advisor for more information.

Department Faculty Advisors:	William Kaune & Kati Donahue
Associate Dean: Maryanne Ang	gliongto

Employment Outlook/Median Salary*:

Career	Degree Level Required	** Growth	Median Annual
			Salary
Heating, Air Conditioning, and Refrigeration	Post-Secondary non-degree		
Mechanics and Installers	award	5%	\$48,630
Sheet Metal Workers	High School Diploma, or		
	equivalent	-1%	\$53,440
Pipefitter	High School Diploma,		
	Post-Secondary Preferred	2%	\$59,880

^{*}Employment information based on current Bureau of Labor Statistics Occupational Outlook Handbook. **Projected % of change in employment 2021-2031; the average for all occupations is 2%.

Jefferson College Program Highlights:

The Heating, Refrigeration, and Air Conditioning Technology program at Jefferson College is accredited by HVAC Excellence, a national organization that has very rigorous standards for accreditation. The HVAC Excellence accreditation allows our students to take various industry recognized tests showcasing their employment readiness. The curriculum includes a full range of traditional Heating, Refrigeration, and Air Conditioning Technology training and new industry trends such as Mini-Split Systems and Solar Hot Water. The department has three labs each set up to be used for several different topics. The classes are set up so that a student can complete the program in two years attending either days or nights.

Transfer Information:

Courses with this symbol are guaranteed to transfer to any public college or university in Missouri.

Pursuing a higher degree? Get the most credit for your transfer and earn your Bachelor's degree from Missouri Baptist
University by attending MBU courses at the Jefferson College, Hillsboro campus! Certificate courses apply directly to
the Associate of Applied Science degree in Heating, Refrigeration, and Air Conditioning Technology, which will transfer
to Missouri Baptist University's Bachelor of Science in Applied Management.