



**Business & Industry Endorsement  
Architecture & Construction**

**HVAC & Sheet Metal**

The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving or repairing heating and air conditioning systems and also the fabrication, assembly, installation and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes and furnace casing.

Levels	Courses	Supporting Courses
Level 1	<b>Principles of Construction</b> 1824CT / 9-12 <i>NCCER Core Certification Possible</i>	
Level 2	<b>Heating, Ventilation &amp; Air Conditioning &amp; Refrigeration I</b> 1803CT / 10-12 <i>Prerequisite: Principles of Construction</i> <i>Refrigerant Handling Certification Possible</i>	
Level 3	<b>Heating, Ventilation &amp; Air Conditioning &amp; Refrigeration II</b> 1804CA/CB / 11-12 <i>Prerequisite: HVAC I</i> <i>NCCER HVAC, Level I Certification Possible</i>	
Level 4	<b>Practicum in Construction Technology</b> 1827CA/CB / 12 <i>Prerequisite: HVAC II</i>	

1 Semester Home Campus	2 Semester Home Campus	1 Semester Ben Barber	2 Semester Ben Barber	College Course Weighted Credit
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Occupation	Median Wage	Annual Openings	% Growth
HVAC Mechanics	\$41,808	3,356	26%
Sheet Metal Workers	\$37,419	1,479	17%
Cost Estimators	\$63,939	2,239	21%

**Industry Based Certifications**

**NCCER Core**

Principles of Construction

The NCCER Core is a prerequisite to all other Level 1 craft curriculum. The learning objectives and performance tasks cover topics such as Basic Safety, Communication Skills and Instruction to Construction Drawings.

**Refrigerant Handling (EPA 608)**

Heating, Ventilation and Air Conditioning and Refrigeration I

EPA regulations (40CFR Part 82, Subpart F) under Section 608 of the Clean Air Act require that technicians who maintain, service, repair or dispose of certain equipment that could release ozone depleting refrigerants into the atmosphere must be certified. This certification meets that requirement.

**NCCER HVAC Level I**

Heating, Ventilation & Air Conditioning & Refrigeration II

The certification in HVAC technology encompasses skills including interpreting blueprints, specifications or diagrams to inform installation, development or operation activities, servicing heating, ventilation or air-conditioning systems or components and inspecting systems to determine if they are operating properly.

*The district will pay 100% of the cost of the certification test if students can show mastery by passing a certification practice test AND maintain an 80+ overall course grade at the time of the certification test. If students don't meet the requirements above, they must pay 100% of the cost of the certification test.*

To earn an endorsement, an MISD student must complete a coherent sequence for 4 or more credits that consist of 2 courses in the same program of study including at least 1 advanced CTE course