

Sheet Metal

TEDS: N1300430

KISD: 84018

Credit: 1

Grade: 10-12

Recommended prerequisite: Principles of Construction

The purpose of the Sheet Metal Technology course is to prepare students in grades 11-12 for entry into the HVAC/Mechanical sheet metal installation industry. Students will learn the types of work performed, safety requirements, math skills needed and career path options within the sheet metal trades. Additionally, students will learn and apply the knowledge and skills needed to select the proper material, tools and joining methods for various types of HVAC and exhaust systems. Basic code requirements and Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) design principles will be introduced.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II

TEDS: 13005900

KISD: 84012

Credits: 2

Grade: 11-12

Required prerequisites: Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I

In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II, students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices.

Plumbing Technology I

TEDS: 13006000

KISD: 84014

Credit: 1

Grade: 10

Recommended prerequisite: Principles of Architecture, Principles of Construction, or Construction Technology I.

In Plumbing Technology, I, students will gain knowledge and skills needed to enter the industry as a plumbing apprentice, building maintenance technician, or supervisor or prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in industry workplace basics and employer/customer expectations, including how to use a plumbing code book; how to identify and use power and hand tools; how to be safe on the job site and when using hand and power tools; how to apply basic plumbing mathematics and plumbing drawing; and how to identify, fit, and use plastic, copper, cast iron, carbon steel, and corrugated stainless steel pipe.

Plumbing Technology II

TEDS: 13006100

KISD: 84015

Credit: 2

Grade: 11-12

Required prerequisite: Plumbing Technology I

In Plumbing Technology II, students will gain the advanced knowledge and skills needed to enter the industry as a plumber, building maintenance technician, or supervisor or prepare for a postsecondary degree in mechanical engineering. Students will acquire knowledge and skills in plumbing codes, industry workplace basics, and employer/customer expectations, including tool and jobsite safety, advanced plumbing mathematics, commercial drawings, basic electricity, hanger installation, supports and structural penetrations, roof drains, fixture installation, valves and faucets, and oxy-fuel safety. Students will also learn about setup, cutting, brazing, and welding water system sizing; gas, drain, waste and vent installation and testing; and water heater installation.