Welding Pathway





BUSINESS & INDUSTRY ENDORSEMENT

Recommended Level 1 Required Level 2

Level 3

Level 4

Introduction to Welding

Welding I

Welding II

Practicum in Welding

- OR -

Career Preparation (Welding Focus)

CERTIFICATIONS: American Welding Society D1.1 and D1.9

INTRODUCTION TO WELDING

KISD #: 966718 PEIMS: 13032250
Grades: 9-10 1.0 Credit
Prerequisite: None

Students will gain knowledge of welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards.

Required Fee/Materials: Yes

Note: Offered at Klein Cain and Klein Oak

High Schools

WELDING I

KISD #: 966818 PEIMS: 13032300
Grades: 10-12 2.0 Credits
Prerequisite: None

This sequential two-year program is designed to prepare students to be skilled workers and to understand, perform and supervise or inspect a wide variety of welding processes, including gas welding, brazing, flame cutting, plasma cutting, shielded metal arc welding and resistance welding. Introduction to gas metal arc welding, gas tungsten arc welding and flux core welding will also be explored. Students will develop a basic understanding of design for welding fabrication, an understanding of the cost and economics of various types welding. Students are introduced to the methods of nondestructive and destructive inspection of welds and welded products.

Required Fee/Materials: Yes **Transportation Needed:** Yes

Note: Offered at Klein Cain and Klein Oak

High Schools

WELDING II

KISD #: 967018 PEIMS: 13032400
Grades: 11-12 2.0 Credits
Prerequisite: Welding I

Welding II is the second part of a two-year program designed to prepare students to be skilled workers and to understand, perform and supervise or inspect a wide variety of welding processes, including gas welding, flame cutting, plasma cutting, arc gouging, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding and flux core welding. Students will understand non-destructive and destructive inspection of welds and welded products and auxiliary equipment used in the process, such as jigs, fixtures, and tools and equipment related to welding. Students will develop math skills and problem solving skills used in the welding field.

Required Fee/Materials: Yes **Transportation Needed:** Yes

Industry Certification: AWS D1.1 Welding

Note: Offered at Klein Cain and Klein Oak

High Schools

PRACTICUM IN WELDING

KISD #: 966918 PEIMS: 13033000 Grades: 12 2.0 Credits Prerequisite: Welding II

Students in this course will participate in a continuation of Welding II in a lab based environment. Advanced welding processes, design and weld testing will the focus of this course.

Required Fee/Materials: Yes
Advanced Grade Points: Yes
Transportation Needed: Yes

Note: Offered at Klein Cain and Klein Oak

High Schools

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CAREER PREPARATION I (Welding Focus)

KISD #: 967718 PEIMS: 12701300

Grades: 11-12 2.0 Credits

EXTENDED PRACTICUM IN CAREER PREP I
KISD #: 967618 PEIMS: 12701305

Grades: 11-12 3.0 Credit

Prerequisite: At least 16 years of age and valid

work documentation (such as a Social Security card) <u>and</u> Approval

Process

A work-based learning program that combines occupationally related classroom instruction and work-based experiences. Students are expected to be enrolled in the career preparation program the entire school year and must have reliable transportation to/from the training site each day. A student not employed at an approved training station prior to the ninth day of school shall have a schedule change removing him/her from the Career Preparation program. The student must be in a paid position and may not be employed by a relative. The student will receive an employer evaluation each grading period as one component of the nine week average.

Approval Process: Yes **Transportation Needed:** Yes

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