



Manufacturing

Manufacturing Engineering Technology

TSDS PEIMS Code: 13032900 (MANENGT1)

Grade Placement: 10–12

Credit: 1

Prerequisite: None.

Recommended Prerequisite: Algebra I.

In Manufacturing Engineering Technology I, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Students will prepare for success in the global economy. The study of manufacturing engineering will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting.

Introduction to Welding CC

TSDS PEIMS Code: 13032250 (INTRWELD)

Grade Placement: 9–12

Credit: 1

Prerequisite: None.

Recommended Prerequisite or Corequisite: Algebra I.

Introduction to Welding will introduce welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: 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. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

Note: *This course is only offered as a dual credit course with STC.*

Welding I CC

TSDS PEIMS Code: 13032300 (WELD1)

Grade Placement: 10–12

Credit: 2

Prerequisite: None.

Recommended Prerequisites: Algebra I, Principles of Manufacturing, Introduction to Precision Metal Manufacturing, or Introduction to Welding.

Welding I provide the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

Note: *This course is only offered as a dual credit course with STC.*

Welding II CC

TSDS PEIMS Code: 13032400 (WELD2)

Grade Placement: 11–12

Credit: 2

Prerequisites: Welding I.

Recommended Prerequisites: Algebra I or Geometry. Recommended Corequisite: Welding II Lab. Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Practicum in Manufacturing CC

TSDS PEIMS Code: 13033000 (First Time Taken) (PRACMAN1)

13033010 (Second Time Taken) (PRACMAN2)

Grade Placement: 12

Credit: 2

Prerequisite: None.

The Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Note: *This course is only offered as a dual credit course with STC.*