# WPT 113 - WELDING THEORY

## **Course Description**

Second level lecture for all students enrolled in a Welding Technology Degree or Certificate Program. Course will cover theory and technique for Gas Metal Arc Welding, Gas Tungsten Arc Welding, and Arc Cutting Processes. Group 2 course.

## **Credit Hours**

3

## **Contact Hours**

3

## **Lecture Hours**

3

## **Required Prerequisites**

WPT 111

## **Corequisites**

WPT 114

## General Education Outcomes supported by this course

Quantitative Reasoning

## **Course Learning Outcomes**

#### Knowledge:

- Define terminology common to the welding trade as defined by the American Welding Society.
- · Identify safety hazards.
- Describe common industry Personal Protective Equipment.

## Application:

- · Apply knowledge of process fundamentals to hypothetical problems.
- · Use formulae to calculate welding related values.

#### Integration:

· Apply Ohm's Law when trouble shooting arc welding processes.

#### **Human Dimension:**

 Recognize the importance of weld quality on the health, safety, and welfare of the public.

### **Caring - Civic Learning:**

• Be cognizant of their personal impact on the quality of the projects.

#### Learning How to Learn:

 Evaluate hypothetical applications to determine efficacy of different processes.