



# School District of Marshfield Course Syllabus

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**Course Name: DC Welding Theory PS**

**Length of Course: Semester**

**Credit: 1/2 Credit**

## **Program Goal:**

Empower learners to be college and career ready through standards-based experiences in the classroom and career-based learning experiences with business and industry partners.

Learners will engage through technology in design, building, problem-solving, repair or service, in a collaborative environment through theory and hands-on experiences.

## **Course Description:**

Welding Theory is a class for learners that are serious about furthering their welding knowledge and skills. Whether your plans are to pursue a welding career, or just improve your quality of work, this class might be for you. Students will learn shop safety, weld print reading, and work on skills using TIG (GTAW), MIG (GMAW), Stick (SMAW), and Oxy-Fuel Welding (OFW) processes. You will spend the majority of the time in a welding booth with guided instruction, while working towards industry competencies. This class is for learners that are self-motivated and respond well to constructive criticism. No prior welding experience is necessary.

**MSTC Course Title: Welding Print Reading**  
**Course Number: MSTC 10-442-112**  
**Total Credits: 2**

### **Technical College Learning Outcome and Competencies:**

#### **Course Competencies**

- Visualize 3D object from three view orthographic projections.
- Visualize 3D object from orthographic projections with special views.
- Create parts list from assembly print.
- Create individual parts of an assembly.
- Locate parts within linear and angular tolerances of print.
- Interpret fillet symbols on fabrication prints.
- Interpret groove weld symbols on fabrication prints.
- Measure linear distances, angles, and feature sizes accurately.

#### **Program Outcomes**

- Demonstrate industry-recognized safety practices.
- Interpret welding drawings.

### **Primary Resource(s):**

**Blueprint Reading for Welders, 8<sup>th</sup> Edition**  
Cengage Learning  
ISBN: 978-1-4283-3528-8  
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