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## Course Outline

### *Weld Joint Design and Preparation – Material Cutting, Grinding, and Fabrication*

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**HFC Course Code:** CIMWD-102

**Course Topic:** Weld Joint Design and Preparation – Material Cutting, Grinding, and Fabrication

**Recommended Textbook:** Welding: Principles and Applications 7<sup>th</sup> Edition

#### **Course Description:**

Covers safety rules for the welding lab and issues such as dealing with ultraviolet rays, burns, fumes, and electrical hazards. Introduces the print symbols and terminology used in fabricating and welding basic joints that are commonly seen on blueprints.

#### **Course Topics**

1. Manuel oxy/fuel cutting.
2. Plasma arc cutting.
3. Power tool safety and use.
4. Fabrication.
5. Oxy/fuel line cutter.

#### **Course Performance Based Objectives \***

1. Demonstrate proper set-up and use of an Oxy/Fuel cutting outfit.
2. Demonstrate proper set-up and use of an Oxy/Fuel line cutter.
3. Demonstrate proper set-up and use of a Plasma Arc Cutter.
4. Demonstrate proper safety and use of power tools.
5. Demonstrate fillet and groove joint assembly.

\* See Projects for more details.





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#### Lectures and Demonstrations

1. Oxy/Fuel Safety and Set-up
2. Plasma Cutting
3. Oxy/Fuel Line Burner
4. Grinders (bench and Hand)
5. Saw
6. Ironworker
7. Tacking





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