

# PRECISION METAL TECHNOLOGY (PMT)

---

## **PMT 0101 Welding Symbols and Blueprint Reading**

**Clock Hours:** 90

This course introduces the student to weld symbol interpretation in accordance with American Welding Society (AWS) standards. Welding details with symbols layout provide a systematic approach to blueprint reading. Fundamentals of drawing elements, scales, layouts, and title blocks are included.

## **PMT 0104 Fundamentals of Metallurgy**

**Clock Hours:** 90

This course provides basic principles of metallurgy. Emphasis is placed on metallurgical terms for metal structures common to the science of materials. Understanding the distinctions between metallic properties of strength, hardness, and ductility provides insight for managing desirable material properties. Differences between ferrous and nonferrous metals are covered in simple definitions, diagrams, and charts highlighting standard industry terms and practices related to metal.

## **PMT 0121 Shielded Metal Arc Welding Principles**

**Clock Hours:** 60

This course addresses principles related to Shielded Metal Arc Welding (SMAW) including SMAW power supplies, electrode holders, equipment set-up, joint configuration, layout, electrode selection, electrode manipulation, arc control, finished bead characteristics, and safety.

## **PMT 0131 Gas Tungsten Arc Welding Principles**

**Clock Hours:** 60

This course provides students with the fundamentals of gas tungsten arc welding (GTAW). Emphasis is placed on power sources, controls, polarity settings, and high frequency usage concepts. Lectures will focus on GTAW torch components, setup, and safety.