**COLLIN COLLEGE**

**COURSE SYLLABUS**

Course Information

**Course Number:** WLDG 1530

**Course Title:** Introduction to Gas Metal Arc Welding (GMAW)

**Course Description:** Principles of gas metal arc welding, set-up and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Additionally, this is an overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints, lap joints, and butt joints using Flux Cored Arc Welding (FCAW) equipment. Lab required.

*Note: Welding classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds repeatedly), reaching, bending, and working around open flames and intense heat for extended periods of time.*

**Course Credit Hours:** 5

Lecture Hours: 3

Lab Hours: 5

**Prerequisite:** Consent of Discipline Lead

**Student Learning Outcomes:**

* **State-mandated Outcomes:** Upon successful completion of this course, students will:

1. Describe welding positions with various joint designs.
2. Describe the effects of welding parameters in GMAW.
3. Apply safety rules.
4. Troubleshoot equipment used, perform visual inspection.
5. Weld various types of structural material.
6. Diagnose welding problems.

* **Additional Collin Outcomes:** Upon successful completion of this course, students will:

1. Demonstrate equipment safety checks.
2. Identify Flux Cored Arc Welding (FCAW) equipment parts.
3. Demonstrate the procedures for running a continuous bead in the flat position.
4. Demonstrated the procedures for welding a butt joint, a T-joint, a lap joint, and an outside corner joint in the flat, horizontal, and overhead positions.
5. Demonstrate the procedures for making an open butt v-groove weld.

**Withdrawal Policy:** See the current *Collin Registration Guide* for last day to withdraw.

**Collin College Academic Policies:** See the current *Collin Student Handbook*

**Americans with Disabilities Act Statement:** Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.