

# WLDG - WELDING

**WLDG 1015 Maintenance Welding 1.6-12.8 Credit Hours (16 to 128 Lec)**

**WLDG 1021 Welding Fundamentals 6.4-17.6 Credit Hours (64 to 176 Lec)**

**WLDG 1025 Introduction to Oxy-Fuel Welding and Cutting 8-17.6 Credit Hours (80 to 176 Lec)**

**WLDG 1407 Introduction to Welding Using Multiple Processes 4 Credit Hours (3 Lec, 4 Lab)**

Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW).

Course Type: Technical/Vocational Course

**WLDG 1417 Introduction to Layout and Fabrication 4 Credit Hours (3 Lec, 4 Lab)**

A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

Course Type: Technical/Vocational Course

**WLDG 1425 Introduction to Oxy Fuel Welding and Cutting 4 Credit Hours (3 Lec, 4 Lab)**

An introduction to oxy-fuel welding and cutting, safety, set-up, and maintenance of oxy-fuel welding, cutting equipment and supplies.

Course Type: Technical/Vocational Course

**WLDG 1428 Introduction to Shielded Metal Arc Welding SMAW 4 Credit Hours (3 Lec, 4 Lab)**

An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs.

Course Type: Technical/Vocational Course

**WLDG 1434 Introduction to Gas Tungsten Arc Welding 4 Credit Hours (3 Lec, 4 Lab)**

Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs.

Course Type: Technical/Vocational Course

**WLDG 1435 Introduction to Pipe Welding 4 Credit Hours (2 Lec, 5 Lab)**

An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment set-up, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes. Prerequisites: WLDG 1528, WLDG 1557, WLDG 2443

Course Type: Technical/Vocational Course

**WLDG 1453 Intermediate Layout and Fabrication 4 Credit Hours (3 Lec, 4 Lab)**

An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications.

Course Type: Technical/Vocational Course

**WLDG 1457 Intermediate Shielded Metal Arc Welding SMAW 4 Credit Hours (3 Lec, 4 Lab)**

A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions. Prerequisite: WLDG 1428

Course Type: Technical/Vocational Course

**WLDG 1491 Special Topics in Welder Welding Technology 4 Credit Hours (3 Lec, 4 Lab)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the student. This course was designed to be repeated multiple times to improve student proficiency.

Course Type: Technical/Vocational Course

**WLDG 1528 Introduction to Shielded Metal Arc Welding (SMAW) 5 Credit Hours (3 Lec, 8 Lab)**

An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided by SMAW fillet welds in various positions.

Prerequisite: N/A

Course Type: Technical/Vocational Course

**WLDG 1553 Intermediate Layout and Fabrication 5 Credit Hours (4 Lec, 4 Lab)**

An intermediate course in layout fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications. Prerequisite: WLDG 1417

Course Type: Technical/Vocational Course

**WLDG 1557 Intermediate Shielded Metal Arc Welding (SMAW) 5 Credit Hours (3 Lec, 8 Lab)**

study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions. Prerequisite: WLDG 1528

Course Type: Technical/Vocational Course

**WLDG 2406 Intermediate Pipe Welding Intermediate Pipe Welding Intermediate Pipe Welding 4 Credit Hours (3 Lec, 4 Lab)**

A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) and/or other processes. Welds will be done using various positions. Topics covered include electrode selection, equipment setup, and safe shop practices.

Course Type: Technical/Vocational Course

**WLDG 2432 Welding Automation 4 Credit Hours (3 Lec, 4 Lab)**

Overview of automated welding and cutting applications. Special emphasis on safe use and operation of equipment.

Course Type: Technical/Vocational Course

**WLDG 2435 Advanced Layout and Fabrication 4 Credit Hours (3 Lec, 4 Lab)**

An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills.

Course Type: Technical/Vocational Course

**WLDG 2443 Advanced Shielded Metal Arc Welding (SMAW) 4 Credit Hours (3 Lec, 4 Lab)**

Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

Course Type: Technical/Vocational Course

**WLDG 2451 Advanced Gas Tungsten Arc Welding 4 Credit Hours (3 Lec, 4 Lab)**

Advanced topics in GTAW welding, including welding in various positions and directions.

Course Type: Technical/Vocational Course

**WLDG 2453 Advanced Pipe Welding 4 Credit Hours (3 Lec, 4 Lab)**

Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.

Course Type: Technical/Vocational Course

**WLDG 2513 Welding using Multiple Process 5 Credit Hours (3 Lec, 8 Lab)**

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAC), flux-cored arc welding (FCAW), gas tungsten arc welding (GTWA), or any other approved welding process. Prerequisite: N/A

Course Type: Technical/Vocational Course