WLDG 1457. INTERMEDIATE SHIELDED METAL ARC (SMAW) WELDING (LECTURE 3, LAB 4). CREDIT 4. WECM.
This is a study of the production of various fillets and groove welds. Students will prepare specimens for testing in all test positions. Students will identify principles of arc welding; describe arc welding operations of fillet and groove joints; explain heat treatments of low alloy steels; and explain weld size and profiles. The student will prepare test plates; perform fillet welds in the overhead position; perform air carbon arc weld removal; perform bevel groove welds with backing plates in various positions; and demonstrate use of tools and equipment. Prerequisite: WLDG 1421 with a grade of "C" or better.

WLDG 2406. INTERMEDIATE PIPE WELDING (LECTURE 3, LAB 4). CREDIT 4. WECM.
This is a comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 1G, 2G, 5G and 6G using various electrodes. Topics covered include electrode selection, equipment setup and safe shop practices. Students will describe equipment and require pipe preparation. Students will perform 1G, 2G, 5G and 6G using various electrodes. Co-requisite: WLDG 1435.

WLDG 2413. WELDING USING MULTIPLE PROCESSES (LECTURE 3, LAB 4). CREDIT 4. WECM.
This course provides instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW) or any other approved welding process. Co-requisite: WLDG 2451.

WLDG 2451. ADVANCED GAS TUNGSTEN ARC (GTAW) WELDING (LECTURE 3, LAB 4). CREDIT 4. WECM.
Advanced GTAW welding, including welding in various positions and directions. Students will exhibit expertise in various welding positions; describe safety rules and equipment used; and describe the effects of welding parameters in GTAW. Students will weld various joint designs; diagnose welding problems; and perform visual inspection. Prerequisite: WLDG 1434 with a grade of "C" or better.

WLDG 2453. ADVANCED PIPE WELDING (LECTURE 3, LAB 4). CREDIT 4. WECM.
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. Students will describe equipment and required pipe preparation and perform 5G and 6G welds using various electrodes. Co-requisite: WLDG 2406.