

WELD 141 : Advanced Welding I

Credits: 3

Class Hours: 1 lecture and 4 lecture/lab

Prerequisites: "C" or higher or concurrent enrollment in WELD 120 and WELD 166.

Comments: May be repeated for a maximum of 6 credits.

Description: This course covers introduction to safe practices, setup, and operation of Gas Tungsten Arc Welding (GTAW) equipment. Our students will use GTAW in steel and aluminum, sheet metal and mild steel plate in flat, butt, and tee positions. We will also cover out of position welding using GTAW or MIG in vertical and overhead positions. Emphasis will be on practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10.

Semester Offered: Spring

Course Student Learning Outcomes (CSLOs):

1. Complete safety inspections of GTAW equipment and accessories.
2. Perform minor exterior repairs to GTAW equipment and accessories.
3. Achieve the safe set up, adjust, tune, and shut down GTAW equipment for operations on carbon steel, stainless steel, and aluminum.
4. Demonstrate a fillet welding in flat, tee, and butt positions.
5. Perform vertical and overhead welding using GMAW procedures.