



Wayne County Community College District

COURSE SYLLABUS

WLT 112 Troubleshooting and Repair

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

This course covers basic mechanical troubleshooting and repair of welding equipment. Included in the course is a business start-up plan covering tools, materials and equipment needed for a successful welding business.

PREREQUISITES: *WLT101, WLT103, WLT104, WLT105*

EXPECTED COMPETENCIES:

Upon completion of this course, the student will be able to:

- Perform maintenance and repair of equipment used in the MIG, TIG, Oxygen-Acetylene, Plasma, and SMAW
- Understand the basic of troubleshooting and repair along with cleaning and selecting proper tools for the task
- Take selected components off a MIG welder; clean, examine and repair or replace then put back together; also change out spool to .045 to .035 wire (replace sponge on wire to clean wire); return to 100% operating condition
- Understand business start up, how to run an portable welder and components needed for the portable welder; return to 100% operating condition
- Clean, examine and replace bad ground or electrode holders on all Arc welders; return to 100% operating condition
- Take apart and clean TIG components, replace if needed; put back together; return to 100% operating condition
- Repair a sabotaged a weld and repair it
- Clean, repair or replace plasma cutting parts and CNC plasma; return to 100% operating condition
- Clean and repair bevel edge oxygen-acetylene machine; return to 100% operating condition
- Clean and repair oxygen-acetylene stations; return to 100% operating condition
- Check all lines and gages for leaks and give report; return to 100% operating condition

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A
80%-89.9%= B
70%-79.9%= C
60%-69.9%= D
<60% = E