

SYLLABUS

DIVISION: Business and Engineering Technology

REVISED: MAY / 2013

CURRICULA IN WHICH COURSE IS TAUGHT: DCC Program of Study

COURSE NUMBER AND TITLE: Wel 122, Arc Welding II

CREDIT HOURS: 2 HOURS/WK LEC: 1 HOURS/WK LAB: 3 LEC/LAB COMB: 4

CATALOG DESCRIPTION: Wel 122 Teaches electric arc welding, including types of equipment, selection of electrodes, safety equipment and procedures, and principles and practices of welding

II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:

Covers performing safety inspections, operation of SMAW equipment, and SMAW operations on fillet welds utilizing E-6010 and E-7018 electrodes. Layout procedures and practices of out of position welding will be practiced during this course.

III. REQUIRED BACKGROUND/PREREQUISITIES:

- Wel 120 Fundamentals Wel 121

IV. COURSE CONTENT:

- Welding orientation (first class only)
- Safety in the welding lab
- Assemble a SMAW outfit
- Electrode selection
- Weld joint design
- SMAW Vertical and Horizontal
- Weld flaws and defects
- Restarting and finishing a weld bead
- Cleaning a weld bead
- Visual inspection

V. THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE

X Communication

X Information Literacy

X Critical Thinking

X Personal Development

X Cultural and Social Understanding

X Quantitative Reasoning

VI. LEARNER OUTCOMES

VII. EVALUATION

Learner outcome	Evaluation method
<ul style="list-style-type: none">• Differentiate between DCEP and DCEN• Demonstrates the ability to correctly complete a safety inspection on an arc welding station• Demonstrates the ability to select the correct electrode, current, and polarity used in the Vertical and Horizontal position• Perform welds in vertical and horizontal positions• Be able to complete a safety inspection in the welding lab	<p>Lab exercises</p> <p>Written test</p> <p>Hands on lab exam</p>

