

NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

WEL 122 - WELDING II (ELECTRIC ARC) (2 CR.)

COURSE DESCRIPTION

Teaches electric arc welding, including types of equipment, selection of electrodes, safety equipment and procedures, principles and practices of welding. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

GENERAL COURSE PURPOSE

WEL 122 is designed to prepare the students who are versed in the basics of SMAW Welding for industrial employment as welders, quality control inspectors, welding equipment salesmen, and welding laboratory assistants. This course serves as an advanced course in SMAW and as a refresher course for the experienced welder.

COURSE OBJECTIVES

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

- A. have a proficient knowledge of the various types of electric welding equipment and it's application in industry
- B. become knowledgeable in the theory of the properties of metals and the applications of metallurgy in welding
- C. have a proficient knowledge of the selection and application of electrodes for various alloys of metals
- D. demonstrate his proficiency of welding techniques on assigned lab projects in the vertical and overhead positions
- E. demonstrate his knowledge of safety equipment and procedures in the lab at all times

MAJOR TOPICS TO BE INCLUDED

- A. Safety equipment and procedures for welders
- B. Welding of fillet, open root V groove butt joints, and V groove joints with backing strip in the vertical position
- C. Welding of fillet, open root V groove butt joints and V groove joints with backing strip in the overhead position
- D. Welding cast irons and alloyed metals with the SMAW process

EXTRA TOPICS (optional)

Qualification testing for certification in accordance with A.W.S. Structural Welding Code