NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

WEL 160 - SEMI-AUTOMATIC WELDING PROCESSES (3 CR.)

COURSE DESCRIPTION

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

GENERAL COURSE PURPOSE

WEL 160 is a course in the certificate Welding Program updating the student in the trends of the welding industry. The student will be instructed in the set-up and use of GMAW, FCAW, and SAW equipment. Experienced welders will find WEL 160 educational.

COURSE OBJECTIVES

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

A. demonstrate a proficient knowledge of welding with the semi-automatic welding processes
B. demonstrate proficient skill in the types of equipment and the set-up of equipment
C. demonstrate a proficient knowledge of various filler wires, gases, fluxes, and combinations thereof
D. observe and practice safety at all times in the welding lab

MAJOR TOPICS TO BE INCLUDED

A. Introduction to semi-automatic welding processes, careers, general shop safety, and safety in welding
B. The submerged arc process, filler wires, and flux
C. The self-shielded flux-cored process and filler wire
D. The gas metal arc welding process, filler wires, and gases

EXTRA TOPICS (optional)

A. Semi-automatic welding in the vertical and overhead positions
B. Qualification testing for certification in accordance with A.W.S. Structural Welding Code