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## Welding Technology (WT)

### **WT 015X Occupational Work Experience (1 - 8)**

*Class Hours: Work Experience*

*Transfers to: CSU*

WT 015X develops skills and knowledge by integrating classroom study with planned, supervised work experience. It is based on the principle that well-educated individuals develop most effectively through an educational plan that incorporates work experience. Through these structured experiences, the students enrich their college studies, which enhances their total development. Occupational Work Experience is supervised employment which is intended to assist students in acquiring desirable work habits, attitudes, and career awareness in the field of the student's major. Students may earn up to 8 units per semester for a maximum of 16 total units. Credits are awarded for paid or voluntary work. For every 75 hours of paid work completed within the semester, 1 unit of credit is awarded. For every 60 hours of volunteer work completed within the semester, 1 unit of credit is awarded. Occupational Work Experience credits are counted as electives toward an Associate's Degree at West Hills College Coalinga and are transferable to four year universities (for specific transfer eligibility, please contact a counselor or an advisor).

### **WT 070 Introduction to Certified Welding (2.5)**

*Class Hours: 36 Lecture | 27 Laboratory*

WT 070 is the introductory course for the certified welding program designed as an introduction for the entry level welder. Topics include practical and theoretical instruction in welding safety, oxyfuel cutting, plasma arc cutting, air carbon cutting and gouging, base metal preparation and weld quality.

### **WT 071 Beginning SMAW (3)**

*Class Hours: 18 Lecture | 108 Laboratory*

*Advisory(s): WT 070*

WT 071 is an introduction to shielded metal arc welding (SMAW). Topics include practical and theoretical training in SMAW equipment and setup; shielded metal arc electrodes; SMAW beads and fillet welds and joint fit-up and alignment.

### **WT 072 Advanced SMAW (3)**

*Class Hours: 18 Lecture | 108 Laboratory*

*Advisory(s): WT 071*

WT 072 is the study and application of advanced shielded metal arc welding (SMAW). This course consists of practical and theoretical training intended to build upon basic SMAW skills including groove welds and backing. Topics also include V-groove and open root V-groove welds for the following positions: flat, horizontal, vertical and overhead.

### **WT 073 Intro to Metallurgy & Weld Symbols (1.5)**

*Class Hours: 27 Lecture*

*Advisory(s): WT 072*

WT 073 is an introduction to metallurgy and common weld symbols used for certified welders. Topics include theoretical instruction in reading welding symbols and welding detail drawings, physical characteristics and mechanical properties and preheating and post-heating of metals.

### **WT 074 GMAW and FCAW:Plate (3)**

*Class Hours: 18 Lecture | 108 Laboratory*

*Advisory(s): WT 073*

WT 074 consists of practical and theoretical training in gas metal arc welding (GMAW) and flux cored arc welding (FCAW). Topics include equipment and filler metals as well as plate in the 1G (flat), 2G (horizontal), 3G (vertical) and 4G (overhead) positions.

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**WT 075 SMAW Pipe Welding (2)**

*Class Hours: 108 Laboratory*

*Advisory(s): WT 074*

WT 075 consists of practical training on the setup of SMAW equipment for open-root V-groove welds. Students will learn procedures for making open-root V-groove welds with SMAW equipment on carbon-steel pipe in the 1G-rotated, 2G, 5G and 6G positions.

**WT 076 Welding Certification Preparation (0.5)**

*Class Hours: 27 Laboratory*

*Prerequisite(s): WT 071*

WT 076 prepares the student to take a welding certification test in the various processes, procedures and standards established by the American Welding Society (AWS).

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