

WELDING

WELDING (WELD)

DIVISION: Career Technical Education

WELD 044A INTRODUCTION TO GAS WELDING

1 unit

Transfer Credit: CSU

Survey of major welding processes, nomenclature, types of joints. Study of oxy-acetylene welding, brazing and cutting. Welding safety. Total of 54 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 044B INTRODUCTION TO ELECTRIC ARC WELDING

1 unit

Transfer Credit: CSU

Prerequisite(s): *One of the following: WELD 044A, WELD 200A, or WELD 200B*

Fundamentals of shielded metal arc welding; equipment, electrodes and basic procedures. Oxygen cutting. Arc welding safety. Total of 54 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 044C ADVANCED ARC WELDING, FCAW & SMAW

1 unit

Transfer Credit: CSU

Prerequisite(s): *One of the following: WELD 044B, WELD 200A, or WELD 200B*

Techniques of out-of-position SMAW and FCAW arc welding. Emphasis will be placed on AWS D 1.1, Structural Steel SMAW and FCAW, Unlimited Thickness groove welds, in the vertical and overhead positions. Total of 54 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 145 INTRODUCTION TO TIG WELDING

1 unit

Prerequisite(s): *WELD 044A or WELD 044B*

Fundamentals of the Tungsten Inert Gas (TIG) or Gas Tungsten Arc (GTAW) welding process, equipment, welding of aluminum and other special metals. Filler rod selection and TIG welding safety. Total of 54 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 150D TUNGSTEN INERT GAS (TIG) WELDING

5 unit

Prerequisite(s): *WELD 150C*

Practical application of the TIG (heli-arc) and MIG welding processes. TIG welding of steel, stainless steel and aluminum. Filler metal selection and production welding techniques. Welding safety. Total of 54 hours lecture and 126 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 200A INTRODUCTION TO STRUCTURAL WELDING

6 unit

Introduction to welding fabrication for the career welding student. Development of basic skills in oxy-acetylene welding, brazing and cutting. Emphasis on practical Shielded Metal Arc Welding (SMAW) in all positions. Blueprint reading, shop math and welding safety. Required instructional trips. Total of 54 hours lecture and 162 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 200B CONSTRUCTION TRADE WELDING

6 unit

Prerequisite(s): *WELD 200A*

Structural steel welding for the construction trades. Performance of groove welds, in all positions, using Shielded Metal Arc Welding (SMAW) and Flux Cored Arc Welding (FCAW). Class preparation for the written and practical structural certification tests. Study of welding code, destructive testing of welds, layout and fabrication practice, shop math and welding safety. Required instructional trips. Total of 54 hours lecture and 162 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 200C INTRODUCTION TO FABRICATION GMAW & GTAW

6 unit

Prerequisite(s): *WELD 200A*

Study of advanced structural steel and aerospace welding. Class preparation for the semi-automatic light gauge certification using Gas Metal Arc Welding (GMAW). Aero-space welding of steel, stainless steel and aluminum using Gas Tungsten Arc Welding (GTAW). Study of welding metallurgy, inspection and nondestructive testing, fabrication practice and welding safety. Required instructional trips. Total of 54 hours lecture and 162 hours laboratory.

Grade Mode: *Audit, Letter Grade*

WELD 303 LAC WELDING LICENSE WRITTEN EXAM PREP

3 unit

Preparation for the LAC Structural Weld License, written exam. No 'hands on' welding in this class. Emphasis on the AWS D 1.1 Structural Steel Code, welding symbols, joint design, electrode classification and general principals of FCAW and SMAW arc welding processes. At the end of the course you will need to go through the LAC Application process to pay for and schedule your test. Total of 54 hours lecture.

Grade Mode: *Audit, Letter Grade*

WELD 411 ADAPTIVE WELDING

2 unit

Enrollment Limitation: *All students must have a registered disability with DSP&S*

Introduction to welding adapted to fit the needs of students with documented physical and learning disabilities. Includes a review of the American Welding Society (AWS) D1.1 welding codebook, in preparation for taking the written portion of the L.A. City welding examination, and one-on-one guidance in developing ability to create sound welds in preparation for the practical portion of the L.A. City welding examination. Total of 18 hours lecture and 54 hours laboratory.

Grade Mode: *Audit, Letter Grade*