



SECTION 1 - BASIS

COURSE TYPE: N Noncredit

SUBMITTED BY:

DISTANCE EDUCATION CERTIFICATION

EFFECTIVE TERM: Summer 2020

Does the course content overlap or duplicate any other course content?

DUPLICATION / OVERLAP

Note: Consultation with the faculty, department(s) and dean(s) where the overlap occurs is required and documentation of the consultation should be attached to course proposal prior to the proposal being submitted to the Curriculum Office (Stage 5).

Be advised that consulting with other departments and working with their department meeting schedules may take several weeks.

A. Specifically, what unique topics are taught in the proposed course?

B. What percentage of each course contains the same topics?

C. Are these topics taught in different ways/to different audiences at different skill levels?

D. Explain why the proposed course requires the overlapping content.

E. What is stated in course descriptions to ensure that students know which course is appropriate for them, given the overlapping content?

SECTION 2 - Course Identification

COURSE ID: VOC COURSE NUMBER: WLD01

COURSE TITLE (FULL): Welding Basics

COURSE TITLE (SHORT): Welding Basics

COURSE DIVISION: Continuing Education Division

COURSE DEPARTMENT: Vocational

COURSE SUBJECT:

DISCIPLINE:

Course Identification Numbering System (C-ID):

C-ID Full Title (<https://c-id.net>)

TOP CODE : 095650 *Welding Technology



CIP CODE:

SECTION 3 - Course Attributes

COURSE CREDIT STATUS:

BASIC SKILLS: Not Applicable

PRE-COLLEGIATE LEVEL: Y - Not Applicable

SAM PRIORITY CODE: C - Clearly Occupational

FUNDING AGENCY CATEGORY: Not Applicable

COURSE VARIATION:

CROSS LISTING STATUS:

Does this course share an outline with any other course or courses?

COURSE PROGRAM STATUS: 1 - Program Applicable

REPEATABILITY: Noncredit Repeatable

NONCREDIT COURSE TYPE: I - Short-Term Vocational

NONCREDIT ENHANCING FUNDING: True

STATE TRANSFER CODE :

STATE CLASSIFICATION CODE : K Other - NCR Enh Funding

NONCREDIT SPECIAL CHARACTERISTICS CODE : Non applicable

Sports/Physical Education Course : No

GRADING METHOD : Pass/No Pass



CREDIT BY EXAM: Not Allowed

WORK EXPERIENCE:

PREREQUISITES, CO-REQUISITES OR ADVISORY FOR ENROLLMENT (ENTRY STANDARDS)

- None
- Adding prerequisites, corequisites or advisories
- Maintaining prerequisites, corequisites or advisories
- Removing prerequisites, corequisites or advisories

Non Standard Requisite

Section 4 - Course Workload Values

Faculty Contact Hours	Lecture	Lab	Act/Clin	Total
Minimum Contact Hours	30	30	0	60
Maximum Contact Hours	90	90	0	180
Minimum Out of Class Hours	0	0	0	0
Maximum Out of Class Hours	0	0	0	0
Minimum TBA Hours	0	0	0	0
Maximum TBA Hours	0	0	0	0
Scheduled Hours	0	0	0	0
Minimum Units	0	0	0	0
Maximum Units	0	0	0	0

Work Experience Hours	Paid	Unpaid
Minimum Hours	0	0
Maximum Hours	0	0
Minimum Units	0	0
Maximum Units	0	0

Lab/Lecture Parity : No

- Yes, Parity Approved
- Not Requesting Parity
- Applying for Parity

METHODS OF INSTRUCTION



- Lecture
- Laboratory
- Lecture and Laboratory
- Distance Learning
- Open Entry/Exit
- Independent Studies
- Work Experience
- Other TBA

Class Size : 0

Course General Education Status :

Course Support Course Status :

Section 5 - Course Certifications



CSU GENERAL EDUCATION AREA

INTERSEGMENTAL GENERAL EDUCATION TRANSFER (IGETC) AREA

ASSOCIATE DEGREE GRADUATION REQUIREMENTS

Section 6 - Course Certifications

CATALOG DESCRIPTION

Fundamentals of welding processes including Oxyfuel, Shielded Metal Arc, and Gas Metal Arc welding. Welding processes related to the areas of fabrication, construction, machine tool, aerospace, and the transportation industries. Focus on use of welding tools and safety in the industry.

SCHEDULE DESCRIPTION

Fundamentals of welding processes including Oxyfuel, Shielded Metal Arc, and Gas Metal Arc welding.

COURSE OUTLINE WITH INFORMATION

LECTURE TOPICAL OUTLINE



History of welding
Welding terminology
Measurements and shop geometry
Safety
Careers in welding
Welding equipment
Oxyfuel cutting and gouging
Shielded metal arc welding equipment
Gas metal arc welding (MIG) steel
Welding defects
Final exam

LAB TOPICAL OUTLINE

Understanding lab and tool crib procedures
Setting gas pressures
Lighting and adjusting the torch flame
Adjustment and use of welding helmet
Welding via oxyacetylene fusion, creating dry and wet beads, creating lap joints
Welding non fusion lap and tee joints
Cutting with Oxyfuel rapid oxidation
Utilizing hand-held torches and automated torches
Welding with Gas Metal Arc (MIG)

MEASURABLE OBJECTIVES

1. Define terms and conditions related to the welding industry.
2. Recognize and illustrate basic metallurgy related to the welding trades.
3. Incorporate safety practices into all welding activities.
4. Recognize and describe common welding processes used in bonding metals.
5. Demonstrate the use of Oxy-acetylene welding (OAW), Shielded Metal Arc Welding (SMAW), and Gas Metal Arc Welding (GMAW).

METHODS OF EVALUATION

Category 1. Substantial written assignments for this course include:

One-page summary of your plan for the Gas Metal Arc (MIG) welding project

If the course is degree applicable, substantial written assignments in this course are inappropriate because:

Category 2. Computational or non-computational problems solving demonstrations

Category 3. Skills Demonstrations



Creation of dry and wet beads, using oxyacetylene fusion
 Performance of the proper welding process that meets industry standards using each base metal to join and cut metals

Category 4. Objective examinations

Multiple choice quizzes on welding terminology and base metal composition used to make metallurgical bonds

SAMPLE ASSIGNMENTS

(Assignments should be directly related to the objectives of the course. They should be specific enough to provide real guidance to faculty and clear expectations for students. Descriptions of the type or examples of assignments are required. For example, rather than “term paper” state “term paper comparing and contrasting the social aspects of hunting tactics of two mammal species.” This section must establish that the work is demanding enough in rigor and independence to fulfill the credit level specified. The nature of the assignments must clearly demand critical thinking. Assignments should be adequate to assure that students who successfully complete them can meet the objectives of the course. Appropriate out-of-class work is required for credit courses.)

1. In a one-page written summary, describe your plan for a project that involves welding aluminum with Gas Metal Arc (MIG), using accepted field terminology.
2. After practicing using oxyacetylene fusion on metal, create dry and wet beads that meet the requirements for a strong welding joint.
3. Using all three welding techniques (oxyfuel, shielded metal arc, and gas metal arc welding) cut a piece of metal and demonstrate the proper welding process for aluminum and steel.

TEXTBOOKS

Title	Publisher	Edition	Author	Date	Online Education Resource
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If substantial assignments then justification of older textbooks

Requisites			
& / Or	Type	Course Name	Is Being

Preconditions of Enrollment Justification Notes/Comments: