



COURSE OUTLINE
Palo Verde College
 One College Drive, Blythe, CA 92225
 (760) 921-5500

Latest Revision: 2/26/07

Board Approval: 3/27/07

1. Course Information. Course Initiator: Joe Boire

| | | | | | |
|---|--|---|---|---|--|
| Subject Area and Course Number: NBE 095 | | Course Title: SHIELDED METAL ARC WELDING® | | | |
| New Course <input type="checkbox"/> Revised <input checked="" type="checkbox"/> Updated <input checked="" type="checkbox"/> | | Static ID C09597 | | TOP Code 0956.50 | Credit Status Request Noncredit |
| Classification Code I=Occupational Education | | SAM Code D=Possibly occupational | | | Course prior to college level Y=Not applicable |
| Noncredit category I=Short-term vocational | | Meets a unique need: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Course duplicated: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Demand/Enrollment Potential: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Transfer request C=Non-transferable | | Articulation request: UC <input type="checkbox"/> CSU <input type="checkbox"/> CSU-GE <input type="checkbox"/> IGETC <input type="checkbox"/> CAN <input type="checkbox"/> | | | |

2. Some or all aspects of this course may be delivered in a Distance Education mode: Yes No
 If checked yes, all questions pertaining to Distance Education must be answered.

3. This course has laboratory or clinic/field hours: Yes No
 If checked yes, this outline must include a list of laboratory or clinic/field activities or topics.

4. This course has prerequisites, co-requisites, or advisories: Yes No
 If checked yes, please complete a [Prerequisite Justification Form](#).

5. Curriculum Committee Approval Date: 3/8/07

6. After Curriculum Committee approval, the following is to be completed by the Office of Instruction:

| TRANSFER APPROVAL STATUS | ARTICULATION APPROVAL STATUS | | | | | |
|--------------------------|------------------------------|--------------------|--------------------------|--------------------------|---------------|--|
| | Not Requested | Date of Submission | Approval Pending | Approval Denied | Date Approved | |
| Approval Pending | | | | | | |
| UC | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| CSU | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| CSU-GE | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| IGETC | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| CAN | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |

CATALOG DESCRIPTION:

This course is an entry-level, hands-on basic Shielded Metal Arc Welding course. Students will learn Shielded Metal Arc equipment identification and welding shop safety. Students will perform basic welds in all positions. This course is repeatable.

UNITS:

FACE TO FACE: Hours Per Week: Lecture: 10 Laboratory: 26 Clinic/Field:

DISTANCE EDUCATION:

ENTRY LEVEL SKILLS, PRE-REQUISITES, CO-REQUISITES AND ADVISORIES:

None

OBJECTIVES and LEARNING OUTCOMES:

Upon successful completion of the course the student will be able to:

1. Identify and explain shielded metal arc welding safety.
2. Identify and explain welding electrical currents.
3. Identify and explain arc welding machines.
5. Set up machine for welding.
6. Identify and explain tools for welding cleaning.

COURSE OUTLINE AND SCOPE:

1. Outline of Topics or Content:

- A. Set up machine for Shielded Metal Arc Welding.
- B. Starting an arc and running a bead.
- C. Produce acceptable welds in the flat, horizontal, vertical and overhead positions.
- D. Produce acceptable welds using E6011, E7024 and E7018 electrodes.

2. If a course contains laboratory or clinic/field hours, list activities or topics:

Safety rules and theory will be discussed and mastered prior to actual welding practice.

3. Examples of Reading Assignments:

See listed textbook information, instructor handouts

4. Examples of Writing Assignments:

Complete project worksheets.

5. Appropriate Assignments to be completed outside of class:

N/A

6. Appropriate Assignments that demonstrate critical thinking:

N/A

7. Other Assignments:

N/A

8. Indicate any assignments that are unique to the Distance Education mode of delivery:

N/A

METHOD OF EVALUATION—FACE TO FACE:

Student Attendance and Participation.
Test Plate Examination.

METHOD OF EVALUATION—DISTANCE EDUCATION:

N/A

METHOD OF INSTRUCTION—FACE TO FACE:

Lecture, visual aids, welding demonstrations.

METHOD OF INSTRUCTION—DISTANCE EDUCATION:

N/A

REPRESENTATIVE TEXTBOOKS, AND OTHER READING AND STUDY MATERIALS:

This section shall include author(s), title, and current publication date of all representative materials.

Textbook: Modern Welding; Althouse, Turnquist, Bowditch, Bowditch, and Bowoditch

Workbook: Modern Welding; Bowditch, Bowditch, and Bowoditch

SIGNATURES:

COURSE INITIATOR: _____ **DATE:** _____

LIBRARY: _____ **DATE:** _____

CHAIR OF CURRICULUM COMMITTEE: _____ **DATE:** _____

SUPERINTENDENT/PRESIDENT: _____ **DATE:** _____