



Course Syllabus

Introduction to Shielded Metal Arc Welding (SMAW)

WLDG 1428

Course Description: An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.

Semester Hours Credit: 4

Lecture/Lab Hours: 2/4 (2 lecture hours, 4 lab hours)

Prerequisite: None

Textbook(s): **Modern Welding (11 Edition) Althouse Turnquist ISBN: 9781605257952**

Course Outcomes:

Upon successful completion of this course the student will:

1. Select electrodes and amperage settings for various thickness of materials and welding positions
2. Define principles of arc welding
3. Explain electrode classifications
4. Perform SMAW operations in various positions using selected electrodes and different joint designs

Evaluation Methods:

1. Written examinations
2. Attendance
3. Discussion participation
4. Lab test and lab performance
5. Destructive method using a guided bend tester

Student Learning Outcomes:

- **Personal Responsibility :** Students will utilize personal responsibility skills to work describe welding positions, safety rules, Power supply, troubleshoot, weld various types of material and define principles of arc welding. Assessment for this SLO will be conducted with students working on Assignment chapter 5 with a visual 3G test (V-Groove weld Vertical). The target for this SLO, 90% of the class will Weld 3G vgroove weld and perform SMAW operations in various positions using selected electrodes and different joint designs with a 70% or better.

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services,



programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g).

See at: [GL \(Legal\)](#)

Special Needs Services: Students with special needs, including physical and learning disabilities, who wish to request accommodations in this course should contact the Student Development Office as soon as possible to make arrangements; this should occur no later than the second week of class or as soon as the student has the documentation on the disability and requested accommodation per a certified medical or psychological professional. In accordance with federal law, a student requesting accommodations must provide documentation of disability to the Student Development Advisor.

For more information, contact: in Alice at sdalice@coastalbend.edu; Beeville at sdbeeville@coastalbend.edu; Kingsville at sdkingsville@coastalbend.edu; and Pleasanton at sdpleasanton@coastalbend.edu.

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See at: [FLB \(Local\)](#) and [FM \(Local\)](#).

See the [Student Handbook](#) for further explanation of Scholastic Dishonesty.

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Coastal Bend College



NOTE: The College website (www.coastalbend.edu) serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.