MIDLAND COLLEGE
SYLLABUS
WLDG 1428
INTERMEDIATE SHIELDED METAL ARC WELDING
2-4

Emiliano Carbajal - WLDG 1428 A245

Course Description: A study of the production of various fillets and groove welds, including preparation of specimens for testing in all test positions. The student will identify principles of arc welding; describe SMAW operations of fillet and groove joints; explain heat treatments of low alloy steels; and explain weld size and profiles. The student will prepare test plates perform fillet welds in the overhead position; perform Air Carbon Arc Cutting (CAC-A), weld removal; perform bevel groove welds with backing plates in various positions; and demonstrate use of tools and equipment. Students will demonstrate safe work practices.
Prequisite: **WLDG 1421**

Text, References, and Supplies:

1. **MODERN WELDING**, by Althouse, Turnquist & Bowditch.

2. Handouts from American Welding Society, Victor & Lincoln.

The student will need to provide his/her own:

- Welding hood with correct lens
- Welding gloves
- Face Shield - Tinted
- Tape measure
- Appropriate clothing for welding
- Safety Glasses

Course Goal/Objectives: The following list of course goals will be addressed in the course. The goals are directly related to the performance objectives. (*designates a CRUCIAL Goal)

1. **Complete Chapter 01 Study Guide & Test**
2. **Complete Chapter 03 Study Guide & Test**
3. **Complete Chapter 05 Study Guide & Test**
4. **Complete Chapter 06 Study Guide & Test**

1. **SMAW Open V-Butt, E6010/E8010 2F CJP**
2. **SMAW Open V-Butt, E6010/E8010, 3F-U CJP**
3. **SMAW Open V-Butt, E6010/E8010 3F-D CJP**

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1. **SMAW Open V-Butt, E6010/E8010 4F CJP**
2. **SMAW Pipe through Plate 1F E6010/E8010**
3. **SMAW Pipe through Plate 2F E6010/E8010**
4. **SMAW Pipe through Plate 5F E6010/E8010**
5. **SMAW Pipe through Plate 6F E6010/E8010**
6. **SMAW Butt joint Pipe 4" 2G,5G, 6G**
7. **SMAW Butt joint Pipe 2" 2G, 5G, 6G**
8. **Define Welding Terms**
9. **4" Pipe Saddle**
10. **6" Pipe Saddle**
11. **Blueprint #1- Welding Fabrication** (Approved by admin)
12. **Blueprint #2 -Welding Fabrication** (Approved by admin)
13. **Blueprint #3 - Welding Fabrication** (Approved by admin)

Student Contributions, and Class Policies:

Attendance, desire to learn with steady and Consistent work.

1.The student will be enrolled in WELD 1428. The student will exhibit professional behavior. Performance will be satisfactory if;

A. College attendance is adhered to
B. Student participates in class
C. Student maintains a positive attitude

2. Unless otherwise stated, the student will be allowed references, including research material located in the Midland College Welding Technology Library. The student will be provided demonstrations for each of the content goals as seen necessary by the instructor. These goals will be complete and satisfactory is consistent with AWS and the course text.

3. Satisfactory performance will be measured by an objective and/or application exam and instructor's observation.

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Evaluation of Students:

Weld Grades.....50%
Chapter Tests.....20%
Attendance, Class Participation,
And Attitude.....10%
Final Examination.....20%

90 and above	A
80 to 89	B
70 to 79	C
60 to 69	D
50 to 59	F

(1 point per absence)

Course Schedule: This course meets for 2 lecture hours and 5 lab hours per week.

SCANS Information: The following SCANS skills are taught and reinforced in this course:

INTERPERSONAL:
Works as a team member to solve shop (group) problems dealing with instructor specified content goal. Aids in the teaching of technique to WELD 1421 & 1425 students. Exercises leadership with encouragement of class participation in shop duties.

LISTENING/SPEAKING:
Interprets and responds to lectures in a manner which aid in the transfer of knowledge and ideas and supports the speaker. Organizes ideas and communicates group oral conversations on welding problems and codes.

Program Information:

Yesenia Martinez, Department Chair
ymartinez@midland.edu
(432) 681-6348

Administrative Information:

Pete Avalos, Applied Technology Dean

Division Office:

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Main Campus/MHAB #176
(432) 685-4676

Students are encouraged to contact the instructor at any time; however, making an appointment will guarantee the instructor's availability at a specific time.

Americans with Disabilities Act (ADA)
Any student who, because of a disabling condition, may require some special arrangements to meet course requirements should contact disabilities support services as soon as possible at: Accommodation Services. Conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation. Accessibility Links can be found on the Pages tab in Canvas.

Midland College Non-Discriminatory Statement:
Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. For information and inquiries regarding Midland College's non-discrimination policies, go to: Title IX For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

***Syllabus subject to change as deemed necessary by the instructor to ensure learning objectives and course goals are met.**