Course Description: An introduction to the fundamentals of equipment used in oxy-acetylene welding (OFW-A) and shielded metal arc welding (SMAW), including welding and cutting safety, basic oxy-acetylene welding and cutting, basic arc welding processes and basic metallurgy. The student will demonstrate safety procedures associated with equipment; and identify ferrous and nonferrous metals.

Text, References, and Supplies: 1. MODERN WELDING, Althouse, Turnquist & Bowditch.

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 Goals/Objectives: The following list of course goals will be addressed in the course. The goals are directly related to the performance objectives. Upon successful completion of the course the student will;

1. Define Welding Terms
2. Complete Chapter 1 Study Guide & Test
3. Complete Chapter 6 Study Guide & Test
4. Complete Chapter 8 Study Guide & Test
5. Complete Chapter 10 Study Guide & Test
6. Assemble & Disassemble OAW Outfit
7. OFW-A Fusion Bead 1G
8. OFW-A Outside Corner Joint
9. OFW-A Fillet
10. OFW-A Butt Joint 1G
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11. OFW-A Butt Joint 3GU  
12. OFW-A Butt Joint 3GD  
13. OFW-A Butt Joint 2G  
14. OFW-A Butt Joint 4G  
15. OFC-A Hand Torch Plates  
16. OFW-A Lap Joint 2F  
17. OFW-A Lap Joint 3FD  
18. OFW-A Lap Joint 4F  
19. OFW-A T Fillet Joint 2F  
20. TB Butt Joint 1G  
21. OFW-A Tail Pipe 1G  
22. OFW-A Tail Pipe 2 G  
23. OFW-A Tail Pipe 5G  
24. OFC-A Track Torch Bead Plates  
25. OFC-A Pattern Torch  
26. SMAW 4 Position Weldment E6010  
27. SMAW Lap Joint 2F/E6010  
28. SMAW Lap Joint 3FD/E6010  
29. SMAW Lap Joint 4F/E6010  
30. SMAW Lap Joint 3FU/E6010

Student Contributions, and  
Class Policies:

Attendance, desire to learn with steady and consistent work.

1. The student will be enrolled in WELD 1421. 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 instructors’ observation.

**Evaluation of Students:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weld Grades</td>
<td>50%</td>
</tr>
<tr>
<td>Chapter Tests</td>
<td>10%</td>
</tr>
<tr>
<td>Attendance, Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>And Attitude</td>
<td>10%</td>
</tr>
<tr>
<td>Notebook</td>
<td>10%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>20%</td>
</tr>
</tbody>
</table>

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 class meets for 2 lecture hours and 5 lab hours per week.

**SCANS Information:**

**INTERPERSONAL:**
Works as a team member to solve shop (group) problems dealing with instructor specified content goal. 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.
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Instructor Information:
Scott Cranford, Instructor ATC
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Fax: (432) 697-9887

Dan Ledbetter, Instructor
E-Mail: dledbetter@midland.edu
Room 182 TC
Tel: (432) 685-4681
Fax: (432) 685-6472

Ken Roland, Lab Instructor ATC
E-Mail: kroland@midland.edu
ATC: (432) 681-6347
Fax: (432) 697-9887

Office Hours: TBA by Individual Instructors

Curt Pervier, Applied Technology Dean
Lisa Hays, Applied Technology Secretary
Room 143A TC
Tel: (432) 685-4676
Fax: (432) 685-6472

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

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu.

For further information on notice of non-discrimination, visit http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm or call 1 (800) 421-3481.

Spanish
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