

MIDLAND COLLEGE
SYLLABUS
WLDG 2439
ADVANCED OXY-FUEL WELDING (OFW) AND CUTTING (OFC)
2-4

Course Description:

A study of all positions welding on ferrous and nonferrous metals using OFW processes, including welding, cutting, brazing, and soldering operations. The student will identify and explain OFW procedures; and select proper tools, equipment and materials. The student will safely perform advanced OFW and OFC operations; and identify and select appropriate tools, equipment, and materials.
Prerequisite: WLDG 1425

Text, References, and Supplies:

1. **MODERN WELDING**, 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. These goals are directly related to the performance objectives. Upon successful completion of the course the student will;

1. Define Welding Terms
2. Complete Chapter 34 Study Guide & Test
3. Complete Chapter 26 Study Guide & Test
4. Complete Chapter 24 Study Guide & Test
5. OAW-A 2" Pipe 1G
6. Prepare and Bend Test 1G
7. OAW-A 2" Pipe 2G
8. Prepare and Bend Test 2G
9. OAW-A 2" Pipe 5G
10. Prepare and Bend Test 5G
11. OAW-A 2" Pipe 6G

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12. Prepare and Bend Test 6G
13. OAW-A 3" Pipe 1G
14. Prepare and Bend Test 1G
15. OAW-A 3" Pipe 2G
16. Prepare and Bend Test 2G
17. OAW-A 3" Pipe 5G
18. Prepare and Bend Test 5G
19. OAW-A 3" Pipe 6G
20. Prepare and Bend Test 6G
21. OAW-A Hard facing
22. OAW-A Cast Iron
23. OAW-A 3/16" Plate Butt 1G
24. OAW-A 3/16" Plate Butt 3GU
25. OAW-A 1 ½" Pipe Reducing T
26. OAW-A 1 ½" Pipe Full Size T
27. OAW-A Aluminum Lap 2F
28. OAW-A Aluminum Butt 1G

**Student Contributions, and
Class Policies:**

Attendance, desire to learn with steady and consistent work.

1. The student will be enrolled in WELD 2439. 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.

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3. Student will use department computers to access AWS software and research procedures and required results of welding codes.

4. Satisfactory performance will be measured by an objective and/or application exam and instructors observation.

Evaluation of Students:

Weld Grades.....50%
Chapter Tests.....10%
Attendance, Class Participation,
And Attitude.....10%
Notebook.....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 class meets for 2 lecture hours and 5 lab hours per week.

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SCANS Information:

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

INFORMATION:

Identifies the need for complete and accurate data when evaluating AWS procedures. Uses computers to process, organize and record test results.

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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Program Information:

Derek Gasch, Department Chair
E-Mail: dgasch@midland.edu
Tel: (432) 685-4809

Curt Pervier, Applied Technology Dean
Lisa Hays, Applied Technology Secretary
Room 143A TC
(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.

Americans with Disabilities Act (ADA) Statement:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

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

Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier pregunta o duda sobre estas políticas no discriminatorias: **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**. Para más información sobre estas políticas no discriminatorias, visite <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> o llame al 1 (800) 421-3481.