

**MIDLAND COLLEGE**  
**SYLLABUS**  
**WLDG 2435**  
**ADVANCED LAYOUT AND FABRICATION**  
**2-5**

**Course Description:**

A continuation of the Intermediate Layout and Fabrication course which covers production and fabrication with layout tools and processes. Emphasis on application of fabrication and layout skills. The student will apply appropriate techniques of fabrication; design welding projects; prepare drawings and produce templates. The student will apply layout offsets; take offs; bills of materials; and apply mathematical concepts in the construction of projects. Safe work habits will be discussed and demonstrated.

Prerequisite: WLDG 1453

**Text, References, and Supplies:**

1. PIPE TEMPLATE LAYOUT, Franklin.
2. PIPE FITTERS AND PIPE WELDERS HANDBOOK, Franklin.

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. Develop Full Size T Template
2. Develop Reducing T Template
3. Develop 2 Piece 90° Turn Template
4. Develop 3 Piece 90° Turn Template
5. Develop Orange Peel Template
6. Develop Bull Plug and Cap Template
7. Develop Concentric Reducer Template
8. Develop Eccentric Reducer Template

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9. Produce Full Size T
10. Produce Reducing T
11. Produce 2 Piece 90° Turn Template
12. Produce 3 Piece 90° Turn Template
13. Produce Orange Peel Cap
14. Produce Bull Plug Cap
15. Produce Concentric Reducer
16. Produce Eccentric Reducer
17. Demonstrate 2 Holing Flanges
18. Demonstrate 90° ELL/Flange
19. Demonstrate 90° ELL Off A 90° ELL
20. Demonstrate 90° ELL-180° Off A 90° ELL
21. Demonstrate 90° ELL-45° ELL

**Student Contributions, and  
Class Policies:**

Attendance, desire to learn with steady and  
Consistent work.

1. The student will be enrolled in WELD 2435. 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.

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<b>Evaluation of Students:</b>	Exercise Grades.....	50%
	Exercise 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 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:

**RESOURCES:**  
Selects material and equipment and procedure which will allow or produce enough time to complete all goals. Estimates cost to complete all content goals.

**THINKING:**  
Specifies goals and procedures needed to meet the desired test results. Develops new learning technique in researching AWS codes. Learns that strict compliance to the rules and regulations of these codes are necessary.

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**Instructor Information:**

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E-Mail: (432) 681-6347  
Fax: (432) 697-9887

Office Hours: TBA by Individual Instructors

Curt Pervier, Applied Technology Dean  
Lisa Hays, Applied Technology Secretary  
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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](http://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](mailto:tbaker@midland.edu)**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, [nmorgan@midland.edu](mailto:nmorgan@midland.edu)**. For further information on notice of non-discrimination, visit <http://wdcrocolp01.ed.gov/CFAPPS/OCR/contactus.cfm> or call 1 (800) 421-3481.

### **Spanish**

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