



# Intro. To Layout And Fabrication

WLDG 1417

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INSTRUCTOR: Randall Switzer   Office Phone: 335-6306   Office Hours: As Posted

COURSE NUMBER: WLDG 1417

CREDIT HOURS: 4 (2/6)

PREREQUISITE OR COREQUISITE: WLDG 1421 or consent of the department chair.

CATALOGUE DESCRIPTION:

A fundamental course in layout and fabrication related to the welding industry. Major emphasis is on structural shapes and use in construction. The student will identify welding symbols; identify and select measuring instruments and tools for fabricating projects; recognize correct layout and fabrication terminology; and identify structural shapes and materials. The student will be responsible for choosing the proper procedures, tools and equipment to perform assigned actions and be able to explain these actions. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9)

TEXTBOOK: Welding Print Reading      ISBN-13: 978-1-59070-642-8  
The Pipe Fitter's And Pipe Welder's Handbook      ISBN 0-02-802500-8

SUPPLIES:

1. Welding Hood with Shade 10 (or higher) Filter Lens
2. Cutting Goggles or Shield
3. Welding Gloves
4. TIG Gloves
5. Striker
6. Chipping Hammer
7. Wire Brush
8. Welding Cap
9. Tape Measure
10. Leather Sleeves (optional)

LEARNING OUTCOMES:

Identify welding symbols; identify and select measuring instruments and tools for fabricating projects; recognize correct layout and fabrication terminology; and identify structural shapes and materials.

COURSE REQUIREMENTS:

- Complete all homework
- Complete all labs
- Complete written\lab tests
- Complete a final test

METHODS OF EVALUATION:

GRADING SCALE	
POINTS	GRADE
90-100	A
80-89	B
70-79	C

WEIGHT OF COURSE REQUIREMENTS	
AREA	GRADE WEIGHT
LAB ASSIGNMENTS	40%
TESTS	20%
FINAL TEST	20%

65-69	D
0-64	F

PROFESSIONALISM	10%
HOMEWORK	10%
TOTAL	100%

#### ATTENDANCE POLICY\PROFESSIONALISM POLICY

Attendance is the greatest predictor of your success. Your attendance at EVERY ONE of the classes and labs is important and expected. A substantial grade penalty will be assessed to late work; including homework, lab assignments, and test. The "Professionalism Grade" will be determined by such factors as attendance, tardiness, class participation, and other classroom factors.

## INTRO. TO LAYOUT AND FABRICATION SYLLABUS CHART

Item(Name)	Type	Description	Due
1	Introduction/ syllabus review/ equipment discussion	Go over safety rules and practices/ watch safety videos/ take safety test/ discuss proper equipment and where to obtain it/ discuss syllabus, due dates, grading etc.	TBA
2	Lecture/ Video	Discuss courses outcomes and projects to be fabricated in the shop/ watch a demonstration video	TBA
3	Lecture/ Lab	Discuss the layout and fabrication of a two piece ninety / Weld in lab toward completion of assigned tasks as defined on Lab Sheet ( 2pc. 90)	TBA
4	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (2pc. 90)	TBA
5	Lecture/ Lab	Lecture on Prints- The Language of Industry/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
6	Lecture/ Lab	Discuss the layout and fabrication of a forty-five degree turn/ Weld in lab toward	TBA

		completion of assigned tasks as defined on Lab Sheet (45 degree)	
7	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (45 degree)	TBA
8	Lecture/ Lab	Lecture over review of measurement and fractions and decimals/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
9	Test Review/ Lab	Review over Chapters 1, 2, and 3, Open Class Discussion Over Homework/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
10	Test	Ch. 1, 2, 3	TBA
11	Lecture/ Lab	Discuss the layout and fabrication of a three piece ninety/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet (3pc. 90)	TBA
12	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (3pc. 90)	TBA
13	Lecture/ Lab	Lecture over understanding prints/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
14	Lecture/ Lab	Discuss the layout and fabrication of a four piece ninety / Weld in lab toward completion of assigned tasks as defined on Lab Sheet (4pc. 90)	TBA
15	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (4pc. 90)	TBA
16	Lecture/ Lab	Lecture over types of prints/ Weld in lab toward completion of assigned tasks as	TBA

		defined on Lab Sheet	
17	Lecture/ Lab	Discuss the layout and fabrication of a full size tee/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet (full size tee)	TBA
18	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
19	Test Review/ Lab	Review over Chapters 5,6 and 9, Open Class Discussion Over Homework/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
20	Test	Ch. 5,6,9	TBA
21	Lecture/ Lab	Discuss the layout and fabrication of a full size lateral / Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
22	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (full size lateral)	TBA
23	Lecture/ Lab	Lecture over welding symbols/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
24	Lecture/ Lab	Discuss the layout and fabrication of a true y/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet (true y)	TBA
25	Lab	Weld in lab toward completion of assigned tasks as defined on Lab Sheet (true y)	TBA
26	Lecture/ Lab	Lecture over fillet welds, groove welds, and pipe welding/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA

27	Chapter Review/ Lab	Review of Ch. 14,15,16,21	TBA
28	Clean up	Clean laboratory areas, empty metal bins, make minor repairs to equipment, hand out weld test certificates	TBA
29	Final Exam Review	All Materials Covered In The Lab, Lecture, and Homework	TBA
30, 31	Final Exam	All Materials Covered In The Lab, Lecture, and Homework	TBA

Syllabus Subject To Change as Needed Without Notice

### Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

### Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "Ask a Librarian " service provide additional help.

### Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

### Student Portal

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

### Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

### Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).