



# Adv. Layout And Fabrication

WLDG 2435

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

COURSE NUMBER: WLDG 2435

CREDIT HOURS: 4 (2/6)

PREREQUISITE OR COREQUISITE: WLDG 1417 and consent of department chair.

CATALOGUE DESCRIPTION:

A continuation of the Intermediate Layout and Fabrication course which covers production and fabrication of 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. Apply layout offsets; take offs; bills of materials; and apply mathematical concepts in the construction of projects. This is a capstone course for the Fitter Welder Level I Certificate and the Lead Welding Machine Operator Level II Certificate. Lab fee required. (SCANS 1, 2, 3, 4, 5, 8, 9)

TEXTBOOK: Welding Print Reading      ISBN-13: 978-1-59070-642-8

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:

Apply appropriate techniques of fabrication; design welding projects; prepare drawings and produce templates; apply layout offsets; take offs; bills of materials; and apply mathematical concepts in the construction of projects.

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
65-69	D

WEIGHT OF COURSE REQUIREMENTS	
AREA	GRADE WEIGHT
LAB ASSIGNMENTS	40%
TESTS	20%
FINAL TEST	20%
PROFESSIONALISM	10%

0-64	F

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.

## ADV. 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 overview of layout and fabrication welding process and watch a demonstration video	TBA
3	Lecture/ Lab	Discussion over first project to be manufactured / Students Begin In Lab	TBA
4	Lab	Prepare detailed list of materials to be submitted for bid	TBA
5	Lecture/ Lab	Review of welding symbols/ Students begin print drawing	TBA
6	Lab	Finish print drawing and submit print	TBA
7	Lecture/ Lab	Discussion of how to fabricate project / Layout of project in lab	TBA
8	Lecture/ Lab	Further discussion of project fabrication / Layout and fabrication of project in lab	TBA
9	Lab	Layout and fabrication of project in lab	TBA

10	Test	Review lab project and discuss grade	TBA
11	Lecture/ Lab	Discussion over second project to be manufactured / Students Begin In Lab	TBA
12	Lab	Prepare detailed list of materials to be submitted for bid	TBA
13	Lecture/ Lab	Review of list of materials and discuss welding methods to be used/ Students begin print drawing	TBA
14	Lab	Finish print drawing and submit print	TBA
15	Lecture/ Lab	Discussion of how to fabricate project / Layout of project in lab	TBA
16	Lecture/ Lab	Further discussion of project fabrication / Layout and fabrication of project in lab	TBA
17	Lab	Layout and fabrication of project in lab	TBA
18	Lecture/ Lab	Review project in mid-process and discuss any changes to be made / Layout and fabrication of project in lab	TBA
19	Lab	Layout and fabrication of project in lab	TBA
20	Test	Review lab project and discuss grade	TBA
21	Lecture/ Lab	Discussion over third project to be manufactured / Students Begin In Lab	TBA
22	Lab	Prepare detailed list of materials to be submitted for bid	TBA
23	Lecture/ Lab	Review of list of materials and discuss welding methods to be used/ Students begin print drawing	TBA
24	Lab	Finish print drawing and	TBA

		submit print	
25	Lecture/ Lab	Discussion of how to fabricate project / Layout of project in lab	TBA
26	Lab	Layout and fabrication of project in lab	TBA
27	Lecture/ Lab	Review project in mid-process and discuss any changes to be made / Layout and fabrication of project in lab	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	TBA
30, 31	Final Exam	All Materials Covered In The Lab, Lecture	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 abd 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](#).