COURSE SYLLABUS FOR

Intro. To Gas Tungsten Arc Weld.

WLDG 1434

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

COURSE NUMBER: WLDG 1434

CREDIT HOURS: 4 (2/6)

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

CATALOGUE DESCRIPTION:
An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment and safe use of tools and equipment. Welding instruction in various positions on joint designs. The student will describe various joint designs; describe safety rules and equipment; and describe the effects of welding parameters in GTAW; and will weld various structural materials. Competencies include advanced skills using gas tungsten arc welding (GTAW) technology. Presents advantages and disadvantages of different shield and purge gases. Welds tested by AWS standards. Student will learn problem-solving techniques specific to GTAW. Lab fee required. (SCANS 8, 9)

TEXTBOOK: Gas Tungsten Arc Welding Handbook ISBN 1-59070-581-5

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:
Describe various joint designs; describe safety rules and equipment; and describe the effects of welding parameters in GTAW; weld various structural 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
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.

INTRO. TO GTAW
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 TIG welding process and watch a demonstration video	TBA
3	Lecture/ Lab	Gas Tungsten Arc Welding Process Lecture /Machine Setup Demonstration, Students Begin To TIG Weld In Lab	TBA
4	Lecture/ Lab	Continued lecture over GTAW Processes / Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
5	Lecture/ Lab	GTAW Process Operation and Safety Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
6	Lecture/ Lab	Continued lecture over GTAW Process Operation and Safety Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA

7	Lecture/ Lab	GTAW Equipment Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
8	Lecture/ Lab	Continued GTAW Equipment Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
9	Test Review/ Lab	Review over Gas Tungsten Arc Welding Process, GTAW Process Operation and Safety, GTAW Equipment, 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	Auxiliary Equipment and Systems Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
12	Lecture/ Lab	Continued Auxiliary Equipment and Systems Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
13	Lecture/ Lab	Shielding Gases and Regulation Equipment Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
14	Lecture/ Lab	Further discuss shielding gases and their applications in the welding industry/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
15	Lecture/ Lab	Further discuss regulation equipment, pressures, and safe storage/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
16	Lab	Weld in lab toward completion	TBA

		of assigned tasks as defined on Lab Sheet	
17	Lecture/ Lab	Filler Materials Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
18	Lecture/ Lab	Continued Filler Materials Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
19	Test Review/ Lab	Review over Auxiliary Equipment and Systems, Shielding Gases and Regulation Equipment, Filler Materials	TBA
20	Test	Ch. 4, 5, 6	TBA
21	Lecture/ Lab	Manual Welding Techniques Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
22	Lecture/ Lab	Continued Manual Welding Techniques Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
23	Lecture/ Lab	Procedure for Manual Welding Aluminum Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
24	Lecture/ Lab	Continued Procedure for Manual Welding Aluminum Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
25	Lecture/ Lab	Procedure for Manual Welding Steel and Steel and Steel Alloys Lecture/ Weld in lab toward completion of assigned tasks as defined on Lab Sheet	TBA
26	Lecture/ Lab	Procedure for Manual Welding Stainless Steel Lecture/ Weld in	TBA

		lab toward completion of assigned tasks as defined on Lab Sheet	
27	Chapter Review/ Lab	Review of Ch. 10, 11, 14, 15	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 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.

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.