4/14/2025	DATE	TEC	DIVISION
☑	REQUIRED COURSE	☐	NEW COURSE
☐	ELECTIVE COURSE	☑	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	WLD-070			**TITLE:** *(30 Characters Max)*		Gas Tungsten Arc Welding							
SEM CR HRS:	2.5	**Lecture:**		0.5		**Lab:**	4.0	**ICCB Lab:**		4.0	**ECH:**	4.5	
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI		☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit			**Clinical Practicum:**	0.0	**Work-based Learning:**		0.0	**WBL ECH:**	0.0	
Course PCS & CIP:	12 - 48.0508			**IAI Code**		N/A				**Contact Hours (Minutes/Week)**			
Repeatable (Y/N):	N	**Pass/Fail (Y/N):**	N	**Variable Credit (Y/N):**	N	**Min:**		**Max:**		**16 Wks**	225	**8 Wks**	450
Prerequisites:	WLD-040 or WLDC-040 and WLD-041 or WLDC-041												
Corequisites:	None												
Catalog Description: (40 Word Limit)	This course introduces students to the gas tungsten arc welding equipment and procedures. Welds are prepared in flat, horizontal and vertical positions on both ferrous and non-ferrous metals.												

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
GTAW safety procedures, set up and maintenance	4.5	1		
GTAW beads flat position ferrous metal	1.5	10		
GTAW horizontal position ferrous metal	1.5	11		
GTAW vertical position ferrous metal	1.5	11		
GTAW flat position non-ferrous metal	1.5	10		
GTAW horizontal position non-ferrous metal	1.5	12		
GTAW vertical position non-ferrous metal	1.5	12		
TOTAL	13.5	67	0	0

EVALUATION							
QUIZZES	☑	**EXAMS**	☑	**ORAL PRES**	☐	**PAPERS**	☐
LAB WORK	☑	**PROJECTS**	☑	**COMP FINAL**	☑	**OTHER**	☐

COURSE MATERIALS		
TITLE:	Welding Principles and Practices	
AUTHOR:	Edward Bohnart	
PUBLISHER:	MCGraw/Hill	
VOLUME/EDITION/URL:	6th Edition	
COPYRIGHT DATE:	2024	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
GTAW safety procedures, set up and maintenance	10.5	1. Identify and follow GTAW Safety practices. 2. Set up and perform safety inspections of GTAW equipment and accessories.
GTAW beads flat position on ferrous metals	16.5	1. Identify and demonstrate GTAW fillet and groove welds in the 1G position.
GTAW beads horizontal position on ferrous metals	16.5	1. Identify and demonstrate GTAW fillet and groove welds in the 2G position.
GTAW beads vertical position on ferrous metals	16.5	1. Identify and demonstrate GTAW fillet and groove welds in the 3G position.
GTAW welder performance qualification test	20.5	1. Perform guided bend test. 2. Pass qualification test. 3. Examine cut surfaces and edges of prepared base metal parts. 4. Examine tacks, root passes, intermediate layers and completed welds.
	80.5	

Outcomes*	At the successful completion of this course, students will be able to:
Course Outcome 1	Demonstrate GTAW beads in the flat position on ferrous metal for butt, lap and “T” welds.
Course Outcome 2	Demonstrate GTAW beads in the horizontal position on ferrous metal for butt, lap and “T” welds.
Course Outcome 3	Demonstrate GTAW beads in the vertical position on ferrous metal for butt, lap and “T” welds.
Course Outcome 4	Demonstrate GTAW beads in the flat, horizontal, and vertical position on non-ferrous metal for butt, lap and “T” welds.
Primary Laker Learning Competency	Creative Thinking & Problem Solving: Students think creatively to solve problems.
Secondary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using the appropriate technological tools.

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.*