

2/14/2025

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	ECH:	4.5		
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI	<input checked="" type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit	Clinical Practicum:	0	Work-based Learning:	0	WBL ECH:	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 and WLD-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		
<b>TOTAL</b>	<b>13.5</b>	<b>67</b>	<b>0</b>	<b>0</b>

### EVALUATION

QUIZZES <input checked="" type="checkbox"/>	EXAMS <input checked="" type="checkbox"/>	ORAL PRES <input type="checkbox"/>	PAPERS <input type="checkbox"/>
LAB WORK <input checked="" type="checkbox"/>	PROJECTS <input checked="" type="checkbox"/>	COMP FINAL <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

### 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
		<i>The student will be able to:</i>
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.
	<b>80.5</b>	

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 and solve problems by successfully combining knowledge in new ways.
Secondary Laker Learning Competency	Information & Technology Literacy: Students not only identify when information is necessary, but they also find, evaluate and use that information effectively with 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.