

2/27/2023

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DIVISION

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REQUIRED COURSE

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NEW COURSE

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ELECTIVE COURSE

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REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	WEL-053		TITLE: (30 Characters Max)		Gas Tungsten Arc Welding/Aluminum						
SEM CR HRS:	4	Lecture:	1		Lab:	6			ECH:	7	
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate / Non-IAI		<input type="checkbox"/> Career/Technical <input checked="" type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:	0	Work-based Learning:	0	WBL ECH:	0	
COURSE PCS #	12.480508		IAI Code				Contact Hours (Minutes/Week)				
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	350	8 Wks	700
Prerequisites:	WEL-057 and WEL-061										
Corequisites:	None										
Catalog Description: (40 Word Limit)	Prepares students with the necessary knowledge and skills for employment in industry. Emphasis is placed on gas tungsten arc welding processes for aluminum. Prepare welding joints in the flat, horizontal, and vertical positions.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
1 Gas Tungsten Arc Welding Safety	1			
2 Equipment Set-Up and Operation	2	10		
3 Each position weld is demonstrated with butt, lap and tee joints on aluminum				
4 Flat Position	3	20		
5 Horizontal Position	3	20		
6 Vertical Position	3	20		
7 Perform Factory and Construction Tests on Butt Joints, All Positions	3	20		
TOTAL	15	90	0	0

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

COURSE MATERIALS	
TITLE:	Gas Tungsten Arc Welding Handbook
AUTHOR:	William H. Minnick
PUBLISHER:	Goodheart-Wilcox
VOLUME/EDITION/URL:	6th
COPYRIGHT DATE:	2013

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Gas Tungsten Arc Welding Safety	1	Identify and follow GTAW Safety practices.
Equipment Set-Up and Operation	12	Identify GTAW equipment and accessories. Identify and report GTAW equipment problems and set up GTAW equipment.
GTAW Beads Flat Position on Aluminum	23	Identify and complete GTAW beads in the flat position on Aluminum metal for butt, lap and "T" welds.
GTAW Beads Horizontal Position on Aluminum	23	Identify and complete GTAW beads in the horizontal position on Aluminum metal for but, lap and "T" welds.
GTAW Beads Vertical Position on Aluminum	23	Identify and complete GTAW beads in the vertical position on Aluminum metal for but, lap and "T" welds.
Perform Factory and Construction Tests on Butt Joints, All Positions	23	Identify and complete GTAW beads in the vertical position on Aluminum metal for but, lap and "T" welds.
	105	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
Demonstrate GTAW beads in the flat position on butt, lap and "T" welds.	
Demonstrate GTAW beads in the horizontal position on butt, lap and "T" welds.	
Demonstrate GTAW beads in the vertical position on butt, lap and "T" welds.	

** Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.*