

2/27/2023

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DIVISION



REQUIRED COURSE



NEW COURSE



ELECTIVE COURSE



REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	WEL-057		TITLE: (30 Characters Max)		Welding Fundamentals						
SEM CR HRS:	2.5	Lecture:	1		Lab:	3		ECH:	4		
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 #	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	200	8 wks	400
Prerequisites:	None										
Corequisites:	None										
Catalog Description: (40 Word Limit)	Course will cover basic welding processes, including: Oxy-Acetylene welding, Arc welding, Cutting and Brazing.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Welding Equipment	1	3		
Safety	1	3		
Oxy/Acetylene Welding	2	6		
Oxy/Acetylene Cutting	1	3		
Brazing	1	3		
Arc Welding	3	9		
Electrode Classification	2	6		
Welding Symbols	1	3		
Gas Metal Arc Welding	2	6		
GasTungsten Arc Welding	1	3		
TOTAL	15	45	0	0

EVALUATION

QUIZZES <input 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 type="checkbox"/>	OTHER <input type="checkbox"/>

COURSE MATERIALS

TITLE:	Welding Skills
AUTHOR:	B. J. Moniz
PUBLISHER:	American Technical Publishers
VOLUME/EDITION/URL:	5th edition
COPYRIGHT DATE:	2015

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Equipment	4	Identify and use welding equipment.
Safety	4	Discuss safety in a welding shop.
Oxy/Acetylene Welding	4	Demonstrate how to light and adjust a torch and make simple welds.
	4	Demonstrate a fillet weld with gas welding process.
Oxy/Acetylene Cutting	4	Demonstrate how to cut steel with a gas powered torch.
Brazing	4	Demonstrate how to braze a lap joint.
Arc Welding	4	Demonstrate how to strike and maintain an arc.
	4	Demonstrate a multi-pass fillet weld.
	4	Demonstrate arc welding in the vertical position.
Electrode Classification	4	Identify electrodes by AWS designation.
	4	Select proper electrode for various applications.
Welding Symbols	4	Identify welding symbols commonly used in industry.

Gas Metal Arc Welding	4	Demonstrate how to setup a MIG welder.
	4	Demonstrate welding using MIG processes.
Gas Tungsten Arc Welding	4	Demonstrate the TIG process to weld aluminum.
60		

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
Demonstrate proper cutting torch procedures.	
Demonstrate basic SMAW fillet and groove welds.	
Demonstrate fillet and groove welds using GMAW process.	
Demonstrate butt weld using the GTAW process.	

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