2/27/2023 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

DOC DIVISION
☐ NEW COURSE
☑ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	WEL-049		TITLE: *(30 Characters Max)*		Shielded Metal Arc Welding III						
SEM CR HRS:	3	Lecture:	0.5	Lab:	5				ECH:	5.5	
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☑ Career/Technical ☐ 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	275	8 wks	550
Prerequisites:	WEL-057 and WEL-048										
Corequisites:	None										
Catalog Description: (40 Word Limit)	This course requires students to weld in all positions using SMAW equipment. These welds must pass a guided bend test.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Weld SMAW groove plates flat position	1.5	15		
Weld SMAW groove plates horizontal position	1.5	17		
Weld SMAW groove plates vertical position	1.5	18		
Weld SMAW groove plates overhead position	1.5	20		
Guided Bend Testing	1.5	5		
TOTAL	7.5	75	0	0

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

COURSE MATERIALS		
TITLE:	*Welding Principles and Applications*	
AUTHOR:	Larry Jeffus	
PUBLISHER:	Cengage	
VOLUME/EDITION/URL:	Eighth	
COPYRIGHT DATE:	2017	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Weld SMAW groove plates flat position	16.5	Weld SMAW v-groove plates in flat position using E7018 electrode for root pass, intermediate, and cover passes.
Weld SMAW groove plates horizontal position	18.5	Weld SMAW v-groove plates in horizontal position using E7018 electrode for root pass, intermediate, and cover passes.
Weld SMAW groove plates vertical position	19.5	Weld SMAW v-groove plates in vertical position using E7018 electrode for root pass, intermediate, and cover passes.
Weld SMAW groove plates overhead position	21.5	Weld SMAW v-groove plates in overhead position using E7018 electrode for root pass, intermediate, and cover passes.
Guided bend testing	6.5	Complete guided bend tests on metal 3/8 in (10mm) thick. Two specimens are prepared and tested one root bend.
	82.5	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
Demonstrate acceptable SMAW beads in the flat 1G position and pass guided bend test.	
Demonstrate acceptable SMAW beads in the horizontal 2G position and pass guided bend test.	
Demonstrate acceptable SMAW beads in the vertical 3G position and pass guided bend test.	
Demonstrate acceptable SMAW beads in the overhead 4G position and pass guided bend test.	

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