

2/27/2023

DATE

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DIVISION

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REQUIRED COURSE

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ELECTIVE COURSE

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NEW COURSE

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REVISION

# Lake Land College

## Course Information Form

COURSE NUMBER:	WEL-047		TITLE: (30 Characters Max)		Shielded Metal Arc Welding I						
SEM CR HRS:	2	Lecture:	0.5		Lab:	3	ECH:		3.5		
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 #	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	175	8 wks	350
Prerequisites:	WEL-057										
Corequisites:	None										
Catalog Description: (40 Word Limit)	This course provides an introduction to shielded metal arc welding. Students learn to set up equipment, identify electrodes, strike and run beads in the flat position.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
SMAW Equipment Identification	2	1		
SMAW Safety Practices	2			
SMAW Electrode Identification	1	1		
SMAW Set Up	1	4		
Equipment problems	1.5			
Single Pass Beads		15		
Multiple Pass Beads		18		
Plug Welds		6		
<b>TOTAL</b>	<b>7.5</b>	<b>45</b>	<b>0</b>	<b>0</b>

## 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>
SMAW Equipment Identification	3	Identify SMAW equipment.
SMAW Safety Practices	2	Demonstrate safety practices for SMAW equipment.
SMAW Electrode Identification	2	Identify types of SMAW electrodes.
SMAW Set Up	5	Identify and perform SMAW set up procedures.
Equipment Problems	1.5	Identify and report SMAW equipment problems.
Single Pass Beads	15	Complete acceptable SMAW beads in the flat position with a single pass for square butt, lap "T" and corner welds on steel plate.
Multiple Pass Beads	18	Complete acceptable SMAW beads in the flat position with a multiple pass for square butt, lap "T" welds on steel plate.
Plug Welds	6	Complete acceptable plug welds on steel plate.
	<b>52.5</b>	

## COURSE OUTCOMES\*

At the successful completion of this course, students will be able to:

Demonstrate SMAW single pass fillet welds in the flat position.

Demonstrate SMAW multi-pass fillet welds in the flat position.

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Demonstrate SMAW plug welds in the flat position.

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