

4/14/2025

DATE

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REQUIRED COURSE

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ELECTIVE COURSE

TEC

DIVISION

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NEW COURSE

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REVISION

Lake Land College

Course Information Form

COURSE NUMBER:		WLD-062		TITLE (30 Characters Max):		Gas Metal Arc Welding II													
SEM CR HRS:		2.5		Lecture:		0.5		Lab:		4.0		ICCB Lab:		4.0		ECH:		4.5	
Course Level:		<input type="checkbox"/> Gen Ed / IAI		<input checked="" type="checkbox"/> Career/Technical		Clinical Practicum:		0.0		Work-based Learning:		0.0		WBL ECH:		0.0			
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	
Prerequisites:				WLD-040 or WLDC-040, WLD-041 or WLDC-041 and WLD-061 or WLDC-061															
Corequisites:				None															
Catalog Description: (40 Word Limit)				This course teaches students to perform gas metal arc welds in the horizontal, vertical and overhead positions using single and multiple pass welds.															

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work Based Learning
Horizontal single pass	1	8		
Horizontal multiple pass	1.5	10		
Vertical single pass	1	8.5		
Vertical multiple pass	1.5	10		
Overhead single pass	1	8.5		
Overhead multiple pass	1.5	15		
TOTAL	7.5	60	0	0

EVALUATION

QUIZZES

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EXAMS

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ORAL PRES

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PAPERS

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LAB WORK

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PROJECTS

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COMP FINAL

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OTHER

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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>
Horizontal single pass	9	<div>1. Identify and demonstrate GMAW beads in the horizontal position with single pass for square butt, lap, and "T" welds.</div> <div>2. Make and examine fillet welds in all positions on carbon steel.</div> <div>3. Make and examine groove welds in all positions on carbon steel.</div> <div>4. Set up for GMAW (spray) operations on carbon steel.</div> <div>5. Fabricate parts from a drawing or sketch.</div> <div>6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.</div>

Horizontal multiple pass	11.5	<ol style="list-style-type: none"> 1. Identify and demonstrate GMAW beads in the horizontal position with multiple passes for butt, lap, and "T" welds. 2. Make and examine fillet welds in all positions on carbon steel. 3. Make and examine groove welds in all positions on carbon steel. 4. Set up for GMAW (spray) operations on carbon steel. 5. Fabricate parts from a drawing or sketch. 6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.
Vertical single pass	9.5	<ol style="list-style-type: none"> 1. Identify and demonstrate GMAW beads in the vertical up position with single pass for square butt, lap and "T" welds. 2. Make and examine fillet welds in all positions on carbon steel. 3. Make and examine groove welds in all positions on carbon steel. 4. Set up for GMAW (spray) operations on carbon steel. 5. Fabricate parts from a drawing or sketch. 6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.
Vertical multiple pass	11.5	<ol style="list-style-type: none"> 1. Identify and demonstrate GMAW beads in the vertical up position with multiple passes for butt, lap, and "T" welds. 2. Make and examine fillet welds in all positions on carbon steel. 3. Make and examine groove welds in all positions on carbon steel. 4. Set up for GMAW (spray) operations on carbon steel. 5. Fabricate parts from a drawing or sketch. 6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.
Overhead single pass	9.5	<ol style="list-style-type: none"> 1. Identify and demonstrate GMAW beads in the overhead position with multiple passes for butt, lap, and "T" welds. 2. Make and examine fillet welds in all positions on carbon steel. 3. Make and examine groove welds in all positions on carbon steel. 4. Set up for GMAW (spray) operations on carbon steel. 5. Fabricate parts from a drawing or sketch. 6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.
Overhead multiple pass	16.5	<ol style="list-style-type: none"> 1. Identify and demonstrate GMAW beads in the overhead position with multiple passes for butt, lap, and "T" welds. 2. Make and examine fillet welds in all positions on carbon steel. 3. Make and examine groove welds in all positions on carbon steel. 4. Set up for GMAW (spray) operations on carbon steel. 5. Fabricate parts from a drawing or sketch. 6. Pass GMAW-S and GMAW (spray) welder performance qualification test on carbon steel.
67.5		

Outcomes*		At the successful completion of this course, students will be able to:
Course Outcome 1	Demonstrate GMAW beads in the horizontal position with multiple passes for square butt, lap, and "T" welds.	
Course Outcome 2	Demonstrate GMAW beads in the vertical up position using a multiple passes for square butt, lap, and "T" welds.	
Course Outcome 3	Demonstrate GMAW beads in the overhead position using a multiple passes for square butt, lap, and "T" welds.	

Primary Laker Learning Competency	Creative Thinking & Problem Solving: Students think creatively to solve problems.
Secondary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using 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.*