

# COURSE OUTCOME MATRIX

## COURSE SYLLABUS

### PART 2 of 3

Course Number and Title	WL 202 GAS TUNGSTEN ARC WELDING (GTAW)
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Credit Hours	3
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Course Description	Through classroom and/or lab/shop learning and assessment activities, students in this course will explain the gas tungsten arc welding (GTAW) process, demonstrate the safe and correct set-up of the GTAW workstation, relate GTAW electrode and filler metal classifications with base metals and joint build pads of weld beads with selected electrodes and filler material in the flat position, build pads of weld beads with selected electrodes and filler material in the horizontal position, perform basic GTAW welds on selected weld joints, and perform visual inspection of GTAW welds.
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Prerequisite(s) and/or Corequisite(s)	
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**Required Textbooks/References/Course Materials:**

Modern Welding Lab Workbook	12th	Althouse, Andrew D.	Goodheart-Wilcox Co.	1635636876
Modern Welding	12th	Althouse, Andrew D.	Goodheart-Wilcox Co.	1635636868

<b>General Education Outcomes</b>	
1	Utilize written and verbal language to discuss and comprehend information, incorporating a variety of technologies, such as text, data, and images (written language, verbal language, and information technology).
2	Identify and interpret relevant information in order to formulate an opinion or conclusion (critical thinking).
3	Demonstrate and communicate computational methods and mathematical reasoning in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate) (quantitative literacy and fluency).
4	Communicate in appropriate ways with those who are culturally diverse (intercultural competence).

<b>Program/Department Outcomes</b>	
1	Prepare students to become safe and competent welders
2	Provide opportunities to possess communication and critical thinking skills
3	Demonstrate responsible professional conduct and behavior
4	Effectively communicate
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	Course Outcomes (CO)	Bloom's Domain for CO (C, A, P), Category, and Level	Program/ Department Outcome(s)	Written Language	Verbal Language	Information Technology	Critical Thinking	Quantitative Literacy and Fluency	Intercultural Competence
1	Ensure that safety aspects of welding processes and practices are understood and followed	C- Understanding (2)	1,2,3,4	0	1	0	1	0	0
2	Perform set up operations and shut down procedures	P- Imitate (1)	1,2,3,4	0	1	0	1	1	0
3	Demonstrate surface weld flat, horizontal, vertical, and overhead position	P- Manipulate (2)	1,2,3,4	0	0	0	1	1	0
4	Demonstrate square groove and fillet weld, butt, lap, and tee joints in flat, horizontal, vertical, vertical up, and overhead position	P- Manipulate (2)	1,2,3,4	0	0	0	1	1	0
5	Perform troubleshooting on GTAW equipment	C- Analyzing (4)	1,2,3,4	0	1	0	1	1	0
6	Inspect welds for inconsistencies and irregularities	C- Understanding (2)	1,2,3,4	0	0	0	1	0	0
7									
8									
9									
10									

Bloom's Domain Legend

C = Cognitive  
A = Affective  
P = Psychomotor

General Education Outcome Legend

2 = Included and Measurable  
1 = Introduced and/or Minimally Addressed and Not Measurable  
0 = Not included

Approved: May 2021  
Reviewed: November 11, 2021