Department/Program Assessment Plan

Department/Program: Welding

Contact Person: Joel Sims

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1. Program Maps

Please include below or attach a curriculum map linking program outcomes to courses. Also include a map indicating where in the program College Learning Outcomes and High Impact Practices are addressed.

Curriculum Map

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
WLDG 100			B				B	B	B				B	
WLDG 110		B	B			B	B					B	B	
WLDG 111		B	B				B	B				B	B	
WLDG 117												B		
WLDG 145		B						B				B		
M191B		B												
WLDG 120			I		I		I		I			I		
WLDG 121			I		I	I	I	I				I	I	
WLDG 130		I										I		
WLDG 185			I		I		I		I					

Course	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
WLDG 205														I	
WLDG 209						I	I			I	I				
COMX 102	I			I											
WRIT 104	I														
DDSN 114															R
WLDG 212					R	R		R			R			R	
WLDG 260								R			R			R	
WLDG 280			R		R			R							
WLDG 298	R			R											
BGEN 105				R											
WLDG 217												P			
WLDG 237					P	P	P								
WLDG 245	P					P	P	P				P			P
WLDG 281			P		P			P	P	P					
WRIT 121	P														

B= student ability to demonstrate the learning outcome is considered basic

I = student ability to demonstrate the learning outcome is considered introductory

R = student ability to demonstrate the learning outcome is reinforced, based on previous learning experiences

P= student ability to demonstrate the learning outcome is considered proficient

CLO/HIPs alignment

Course	CLOs			HIPs										
	Critical Thinking	Comm.	Prof.	FYS	CIE	LC	WIC	CAP	UR	DGL	eP	SL	IN	CCP
WLDG 100						X								
WLDG 110			X			X								
WLDG 111						X							X	
WLDG 117		X				X		X						
WLDG 145	X					X		X				X		
M191B														
WLDG 120			X			X							X	
WLDG 121						X							X	
WLDG 130	X					X		X					X	
WLDG 185						X								
WLDG 205						X								
WLDG 209						X								
COMX 102														
WRIT 104														
DDSN 114						X								
WLDG 212						X								
WLDG 260						X		X				X		
WLDG 280		X	X			X								
WLDG 298						X							X	
BGEN 105														
WLDG 217		X				X								
WLDG 237						X								
WLDG 245	X					X								X
WLDG 281			X			X								
WRIT 121														

CLOs: Critical Thinking   Communication   Professionalism

HIPS: First-Year Seminars/Experiences (FYS) Common Intellectual Experiences (CIE)   Learning Community (LC) Writing-Intensive Courses (WIC)   Collaborative Assignments/Projects (CAP)   Undergraduate Research (UR)   Diversity/Global Learning (DGL)   ePortfolios (eP)   Service Learning (SL) Internships (IN)   Capstone Courses/Projects (CCP)

2. Assessment Plan and Schedule

Please provide a multi-year schedule indicating when program outcome assessment will be reported and what classes will be used to assess program outcomes. The assessment cycle should be 5 years or less.

*Programs with external accreditation should follow the assessment timeline and requirements of their accrediting body. Please share your assessment schedule (if applicable) below. Otherwise, please give a detailed response to item 3.

Course(s) Assessed	Year Reported	Program Outcomes Assessed
WLDG 100	2020-2021 2023-2024 2026-2027	3, 7, 8, 9, 13
WLDG 110	2021-2022 2024-2025 2027-2028	2, 3, 6, 7, 12, 13
WLDG 111	2022-2023 2025-2026 2028-2029	2, 3, 7, 8, 12, 13
WLDG 117	2020-2021 2023-2024 2026-2027	12
WLDG 145	2020-2021 2023-2024 2026-2027	2, 8, 12
M191B		2
WLDG 120	2021-2022 2024-2025 2027-2028	3, 5, 7, 9, 12
WLDG 121	2022-2023	3, 5, 6, 7, 8, 12, 13

	2025-2026 2028-2029	
WLDG 130	2021-2022 2024-2025 2027-2028	2, 12
WLDG 185	2022-2023 2025-2026 2028-2029	3, 5, 7, 9
WLDG 205	2021-2022 2024-2025 2027-2028	13
WLDG 209	2020-2021 2023-2024 2026-2027	6, 7, 9, 10
COMX 102		1, 4
WRIT 104		1
DDSN 114	2021-2022 2024-2025 2027-2028	14
WLDG 212	2021-2022 2024-2025 2027-2028	5, 6, 8, 10, 13
WLDG 260	2022-2023 2025-2026 2028-2029	9, 11, 13
WLDG 280	2022-2023 2025-2026 2028-2029	3, 5, 8
WLDG 298	2020-2021 2023-2024 2026-2027	1, 4

BGEN 105		4
WLDG 217	2021-2022 2024-2025 2027-2028	12
WLDG 237	2022-2023 2025-2026 2028-2029	5, 6, 7
WLDG 245	2020-2021 2023-2024 2026-2027	1, 6, 7, 8, 11, 14
WLDG 281	2020-2021 2023-2024 2026-2027	3, 5, 8, 9, 10
WRIT 121		1

3. Assessment Process

Individual faculty will be asked to follow the assessment plan and schedule as indicated above. Faculty will be expected to complete reflections for the courses indicated. Please note here 1) when reflections will be completed (e.g., end of block, end of semester, fall, spring, summer, etc.), and 2) any additional assessment processes your department/program will follow.

Year 1 courses- 2020-2021 (2023-2024) (2026-2027)

Course	Faculty	Reflection due at end of
WLDG 100	Todd Reser	Fall end of 1st 8 week block
WLDG 117	Doug Zander	Fall end of 1st 8 week block
WLDG 145	Todd Reser	Fall end of 2nd 8 week block
WLDG 298	Doug Zander	Fall end of 2nd 8 week block
WLDG 209	Todd Reser	Spring end of 2nd 8 week block
WLDG 245	Doug Zander	Spring end of 2nd 8 week block
WLDG 281	Doug Zander	Spring end of 1st 8 week block

Year 2 courses- 2021-2022 (2024-2025) (2027-2028)

WLDG 110	Todd Reser	Fall end of 1st 8 week block
WLDG 120	Todd Reser	Spring end of 1st 8 week block
WLDG 130	Todd Reser	Spring end of 2nd 8 week block
WLDG 205	Doug Zander	Spring end of 1st 8 week block
WLDG 212	Doug Zander & Todd Reser	Fall end of 2nd 8 week block
WLDG 217	Doug Zander	Spring end of 1st 8 week block
DDSN 114	Adjunct Mark Yeager	Fall end of 2nd 8 week block

Year 3 courses- 2022-2023 (2025-2026) (2028-2029)

WLDG 111	Todd Reser	Fall end of 2st 8 week block
WLDG 121	Todd Reser	Spring end of 1st 8 week block
WLDG 185	Todd Reser	Spring end of 2nd 8 week block
WLDG 260	Doug Zander	Fall end of 1st 8 week block
WLDG 280	Doug Zander & Todd Reser	Fall end of 2nd 8 week block
WLDG 237	Doug Zander	Spring end of 1st 8 week block

4. College Learning Outcomes Assessment

Please indicate here if CLOs will be assessed using any departmental/programmatic assessments or if they will be assessed by individual faculty using a tool of their choice. If different assessment methods will be used for each CLO, please specify which CLO(s) will be assessed departmentally or through individual faculty assessments.

Department/Program Assessment__X___

What is the tool or assessment? Welder qualification testing of various processes throughout the program.

Individual Faculty Assessment___X__

5. Opportunities for Change

Please indicate here any opportunities for change on which your department/program plans to work during the assessment cycle and how those changes will be assessed. Examples might include improving pass rates in a course, creating departmental assessments, etc.

Please return this completed form to Mandy Wright at assessment@gfcmsu.edu.

Program Outcomes

PO1. Demonstrate effective oral and written communication skills appropriate to the welding industry.
PO2. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.
PO3. Demonstrate the ability to follow industry safety practices.
PO4. Demonstrate industry work ethic and professionalism.
PO5. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.
PO6. Troubleshoot and critically think through problems with welding systems and processes.
PO7. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.
PO10. Demonstrate the ability to perform pipe welds in multiple positions to industry standards and codes.
PO11. Demonstrate a basic understanding of weld repair and equipment maintenance related to the welding field.
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.
PO14. Use Computer Aided Design software to: Draw and edit a 2D object, annotate a drawing, plot and scale drawings.