

**KELLOGG COMMUNITY COLLEGE**  
**INDUSTRIAL WELDING**  
**COURSE OPTIONS**

**SPRING 2024**

Certificate: 25 credits

Associate in Applied Science: 60 credits (combination of industrial welding, technical electives, and general education credit requirements)

All costs are subject to change without notice. Please call 269-965-4137 to verify.

Module Subject Code and Number	Module Title	Credit	Contact Hours	Lab Fees	Tuition	Total Cost
<input type="checkbox"/> INWE C910-8230	WELDING ORIENTATION The orientation must be completed at the RMTC in Battle Creek prior to registration. Please call 269.965.4137 to verify available orientation times.		2	0.00	0.00	0.00
<b>UNIT 05 BASICS OF WELDING</b>						
<input type="checkbox"/> INWE 05010-8230	WELDING SHOP SAFETY RULES	0.17	4	4.00	45.82	49.82
<input type="checkbox"/> INWE 05020-8230	JOINTS WELDS POSITIONS	0.13	3	9.00	35.04	44.04
<input type="checkbox"/> INWE 05030-8230	RULES AND SQUARES	0.13	3	9.00	35.04	44.04
<b>UNIT TOTAL</b>		<b>0.43</b>	<b>10</b>	<b>22.00</b>	<b>115.90</b>	<b>137.90</b>
<b>UNIT 10 OXYACETYLENE WELDING</b>						
<input type="checkbox"/> INWE 10010-8230	OXY-FUEL WELDING TERMS	0.17	4	9.00	45.82	54.82
<input type="checkbox"/> INWE 10020-8230	SET UP OXY-FUEL WELD STAT	0.08	2	9.00	21.56	30.56
<input type="checkbox"/> INWE 10030-8230	RUN BEADS W/WO FILL	0.29	7	28.00	78.16	106.16
<input type="checkbox"/> INWE 10040-8230	WELD JOINTS FLAT POSITION	1.00	24	45.00	269.50	314.50
<b>UNIT TOTAL</b>		<b>1.54</b>	<b>37</b>	<b>91.00</b>	<b>415.04</b>	<b>506.04</b>
<b>UNIT 15 CUTTING PROCESSES</b>						
<input type="checkbox"/> INWE 15010-8230	BASIC CUTTING PRACTICES	0.13	3	9.00	35.04	44.04
<input type="checkbox"/> INWE 15020-8230	CUT FERROUS MET W OXY FUEL	0.33	8	31.00	88.94	119.94
<input type="checkbox"/> INWE 15030-8230	CUTTING METALS W PLASMA	0.33	8	33.00	88.94	121.94
<b>UNIT TOTAL</b>		<b>0.79</b>	<b>19</b>	<b>73.00</b>	<b>212.92</b>	<b>285.92</b>
<b>UNIT 20 BRAZING AND SOLDERING</b>						
<input type="checkbox"/> INWE 20010-8230	BRAZ JOINTS FLAT POSITION	0.33	8	41.00	88.94	129.94
<input type="checkbox"/> INWE 20020-8230	BRAZ V-GROOVE JOINTS	0.21	5	34.00	56.60	90.60
<input type="checkbox"/> INWE 20030-8230	SILVER BRAZ DISSIMILAR METALS	0.13	3	35.00	35.04	70.04
<input type="checkbox"/> INWE 20040-8230	LEAD SOLDERING SEAMS	0.25	6	35.00	67.38	102.38
<b>UNIT TOTAL</b>		<b>0.92</b>	<b>22</b>	<b>145.00</b>	<b>247.96</b>	<b>392.96</b>
<b>UNIT 25 SHIELDED METAL ARC WELDING</b>						
<input type="checkbox"/> INWE 25010-8230	SMAW TERMS DEFINITIONS	0.17	4	9.00	45.82	54.82
<input type="checkbox"/> INWE 25020-8230	ELECTRODES FOR SMAW	0.21	5	14.00	56.60	70.60
<input type="checkbox"/> INWE 25030-8230	STRIKE ARC RUN BEADS	0.67	16	45.00	180.57	225.57
<input type="checkbox"/> INWE 25040-8230	ANALYZE WELD CHARACTERISTICS	0.13	3	9.00	35.04	44.04
<input type="checkbox"/> INWE 25050-8230	MULTIPASS FILLET WELDS	0.50	12	45.00	134.75	179.75
<input type="checkbox"/> INWE 25060-8230	WELD SIZE WEAVE TECHNIQUE	0.50	12	29.00	134.75	163.75
<input type="checkbox"/> INWE 25070-8230	CORNER JOINT FLAT POSITION	0.67	16	29.00	180.57	209.57
<input type="checkbox"/> INWE 25080-8230	V-GROOVE BUTT W BACKING	0.50	12	64.00	134.75	198.75
<input type="checkbox"/> INWE 25090-8230	V-GROOVE BUTT WO BACKING	0.67	16	63.00	180.57	243.57
<b>UNIT TOTAL</b>		<b>4.02</b>	<b>96</b>	<b>307.00</b>	<b>1,083.42</b>	<b>1,390.42</b>
<b>UNIT 30 ADVANCED ARC WELDING</b>						
<input type="checkbox"/> INWE 30010-8230	TEE JOINTS VERTICAL UP	0.58	14	45.00	156.31	201.31
<input type="checkbox"/> INWE 30020-8230	BUTT W BACK VERTICAL UP	0.46	11	64.00	123.97	187.97
<input type="checkbox"/> INWE 30030-8230	BUTT WO BACK VERTICAL UP	0.75	18	63.00	202.13	265.13
<input type="checkbox"/> INWE 30040-8230	TEE JOINTS VERTICAL DOWN	0.29	7	29.00	78.16	107.16
<input type="checkbox"/> INWE 30050-8230	BUTT W BACK VERTICAL DOWN	0.42	10	64.00	113.19	177.19
<input type="checkbox"/> INWE 30060-8230	BUT WO BACK VERTICAL DOWN	0.33	8	63.00	88.94	151.94

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<b>UNIT 30      ADVANCED ARC WELDING (CONTINUED)</b>						
<input type="checkbox"/> INWE 30070-8230	BUTT W BACK HORIZONTAL	0.50	12	64.00	134.75	198.75
<input type="checkbox"/> INWE 30080-8230	BUTT WO BACK HORIZONTAL	0.50	12	63.00	134.75	197.75
<input type="checkbox"/> INWE 30090-8230	TEE JOINTS OVERHEAD	0.50	12	29.00	134.75	163.75
<input type="checkbox"/> INWE 30100-8230	BUTT W BACK OVERHEAD	0.58	14	64.00	156.31	220.31
<input type="checkbox"/> INWE 30110-8230	BUTT WO BACK OVERHEAD	0.83	20	63.00	223.69	286.69
<b>UNIT TOTAL</b>		<b>5.74</b>	<b>138</b>	<b>611.00</b>	<b>1,546.95</b>	<b>2,157.95</b>
<b>UNIT 35      WELDING METALLURGY</b>						
<input type="checkbox"/> INWE 35010-8230	INTRO TO METALLURGY	0.46	11	9.00	123.97	132.97
<input type="checkbox"/> INWE 35020-8230	EXAMINE IDENTIFY METALS	0.13	3	14.00	35.04	49.04
<input type="checkbox"/> INWE 35030-8230	METALLURGY FUND CAST IRON	0.13	3	9.00	35.04	44.04
<input type="checkbox"/> INWE 35040-8230	METALLURGY FUND STAINLESS	0.13	3	9.00	35.04	44.04
<input type="checkbox"/> INWE 35050-8230	TESTING METALS	0.42	10	9.00	113.19	122.19
<b>UNIT TOTAL</b>		<b>1.27</b>	<b>30</b>	<b>50.00</b>	<b>342.28</b>	<b>392.28</b>
<b>UNIT 40      GAS METAL ARC WELDING</b>						
<input type="checkbox"/> INWE 40010-8230	EXPLAINING GMAW	0.29	7	34.00	78.16	112.16
<input type="checkbox"/> INWE 40020-8230	START ARC RUN BEADS GMAW	0.17	4	29.00	45.82	74.82
<input type="checkbox"/> INWE 40030-8230	GMAW FCAW WELD ALL POSITIONS	1.67	40	93.00	450.07	543.07
<b>UNIT TOTAL</b>		<b>2.80</b>	<b>67</b>	<b>156.00</b>	<b>574.05</b>	<b>730.05</b>
<b>UNIT 45      GAS TUNGSTEN ARC WELDING</b>						
<input type="checkbox"/> INWE 45010-8230	EXPLAINING GTAW	0.42	10	30.00	113.19	143.19
<input type="checkbox"/> INWE 45020-8230	START ARC RUN BEADS GTAW	0.42	10	29.00	113.19	142.19
<input type="checkbox"/> INWE 45030-8230	GTAW ALUMINUM FLAT POSITION	1.25	30	73.00	336.88	409.88
<input type="checkbox"/> INWE 45040-8230	BASIC JOINTS STAINLESS	1.25	30	57.00	336.88	393.88
<input type="checkbox"/> INWE 45050-8230	GTAW ALUMINUM OUT POSITION	1.67	40	83.00	450.07	533.07
<b>UNIT TOTAL</b>		<b>5.01</b>	<b>120</b>	<b>272.00</b>	<b>1,350.21</b>	<b>1,622.21</b>
<b>TOTAL</b>		<b>21.85</b>	<b>525</b>	<b>1,727.00</b>	<b>5,888.73</b>	<b>7,615.73</b>

**FOR OFFICE USE ONLY**

Instructor Approval \_\_\_\_\_ Date \_\_\_\_\_

Total Credit \_\_\_\_\_ Total Contact \_\_\_\_\_ Total Cost \_\_\_\_\_