

*Education and Workforce Development Cabinet*

**CURRICULUM MAP**

<b>School:</b>	<b>Lake Cumberland ATC-Adair</b>	<b>Program:</b>	<b>Welding Technology</b>
<b>Teacher:</b>	<b>Barney Taylor</b>	<b>School Year:</b>	<b>2020-2021</b>
<b>KCTCS Course Number:</b>	<b>WLD 140 and 141</b>	<b>KY Tech Course Name</b>	<b>Gas Metal Arc Welding and Fillet Lab</b>
<b>Length of Course:</b>	<b>Semester</b>	<b>Length of Period</b>	<b>85 Minutes</b>
<b>High School Credit(s)</b>	<b>1</b>		





Time Wks/Month	Dates Taught	Objectives	Content Tasks (#'s and E, I, C), Activities, Assessment	Essential Questions	Core Content Skill Standards
Unit 1 Week 1 Days 1-5		Lab Equipment and Safety	<p><b>TASKS</b>            1.WLD 140 TASK 1- Practice lab safety procedures            2.WLD 141 TASK 1- Practice lab safety procedures</p> <p><b>ACTIVITIES</b>            1.Students will go through class orientation            2.Course syllabus, class and lab rules read and signed by students and parents            3.Show power point on lab safety and lecture            4.Show video on lab safety and lecture            5.Show video on fire safety and lecture            6.Show video on personal protective equipment and lecture            7.Show video on equipment safety and lecture</p> <p><b>ASSESSMENT</b>            1.Written test on lab and equipment safety            2.Written test on fire safety            3.Written test on personal protective equipment</p>	<ol style="list-style-type: none"> <li>1. Who is the person most responsible for your safety?</li> <li>2. What is the proper Personal Protective Equipment for welding?</li> <li>3. Why is it important to have procedures in place for emergency situations?</li> </ol>	<p><b>Skill Standards:</b>  <b>AD002</b>            Demonstrate ability to learn new process steps  <b>OD008</b>            Identify the safety and proper use of the tools of the trade  <b>EA009</b>            Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b> Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>RST-4.</b> Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 11–12 texts</i>  <b>RST-7.</b> Integrate and evaluate multiple sources</p>

					of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
Unit 2 Week 2 Days 6,7,8,9,10		GMAW ,FCAW,and SAW Equipment and Set Up	<p><b>TASKS</b>  <b>WLD 140 TASK 2-</b>Use lab equipment and tools  <b>WLD 140 TASK 3-</b> Apply principles of GMAW to weld metals, to include FCAW and SAW</p> <p><b>ACTIVITIES</b>  1.Show power point on Gmaw Equipment and lecture  2.Show video on Gmaw equipment and set up and lecture  3.Discuss FCAW and SAW equipment and set up  4.Show Youtube videos of GMAW, FCAW, and SAW processes being used.  5. Go into lab and do a hands on demonstration setting up a machine and troubleshooting problems.</p> <p><b>ASSESSMENT</b>  2 Written tests will be given</p>	1.What are the advantages and disadvantages of using GMAW, FCAW, and SAW processes? 2. How do I set up a GMAW machine properly? 3. What are the proper welding techniques when using the GMAW process? 4. How do I fix my machine if it malfunctions?	<b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7
Unit 3 Week 3 Days 11,12		GMAW Welding in Flat Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p>	1. What voltage and wire speed is required to make this weld? 2. What is the proper weld speed and manipulation of gun to make this weld?	<b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009

			<p><b>ACTIVITIES</b> Students will lay stringers beads on ¼” steel plate in flat position</p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	3. How can I make my welds better?	Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7
Unit 3 Week 3 Days 13,14,15		GMAW Welding in Flat Position	<p><b>TASKS</b> <b>WLD 141 TASK 2-</b> Use lab equipment and tools <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b> 1.Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles 2.Students will weld a multi pass T joint on ¼” steel plate in the flat position</p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<ol style="list-style-type: none"> <li>1. What voltage and wire speed is required to make this weld?</li> <li>2. What is the proper weld speed and manipulation of gun to make this weld?</li> <li>3. How can I make my welds better?</li> </ol>	<p><b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 Prove that all circles are similar G-GMD-3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.</p>

Unit 3 Week 4 Days 16,17		GMAW Welding in Flat Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1.Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles  2.Students will weld a multi pass Lap joint on ¼” steel plate in the flat position</p> <p><b>ASSESSMENT</b>  Instructor will give grade for weld</p>	<ol style="list-style-type: none"> <li>1. What voltage and wire speed is required to make this weld?</li> <li>2. What is the proper weld speed and manipulation of gun to make this weld?</li> <li>3. How can I make my welds better?</li> </ol>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4  RST-7  GC-1  G-GMD-3</p>
Unit 3 Week 4 Days 18,19,20		GMAW Welding in Flat Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1.Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</p>	<ol style="list-style-type: none"> <li>1. What voltage and wire speed is required to make this weld?</li> <li>2. What is the proper weld speed and manipulation of gun to make this weld?</li> <li>3. How can I make my welds better?</li> </ol>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines</p>

			<p><b>2.Students will weld a multi pass Corner joint on 1/2” steel plate in the flat position</b></p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>		<p><b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3</p>

<b>Time Wks/Month</b>	<b>Dates Taught</b>	<b>Unit Topics</b>	<b>Content Tasks (#'s and E, I, C), Activities, Assessment</b>	<b>Essential Questions</b>	<b>Core Content Skill Standards</b>
Unit 4 Week 5 Days 21,22,23		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2- Use lab equipment and tools</b>  <b>WLD 140 TASK 4- Apply knowledge of the effects of variables of GMAW to weld plate and pipe</b>  <b>WLD 140 TASK 5- Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</b></p> <p><b>ACTIVITIES</b>  <b>1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</b>  <b>2.Students will weld a multi pass T joint on ¼” steel plate in the vertical up position</b></p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4  RST-7  GC-1  G-GMD-3</p>

Unit 4 Week 5 Days 24,25		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass T joint on 1/4" steel plate in the vertical down position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>
Unit 4 Week 6 Days 26,27		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass Lap joint on 1/2" steel plate in the vertical down position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>

Unit 4 Week 6 Days 28,29,30		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass Lap joint on 1/2" steel plate in the vertical up position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>
Unit 4 Week 7 Days 31,32		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass corner joint on 1/2" steel plate in the vertical down position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>

Unit 4 Week 7 Days 33,34,35		GMAW Welding in Vertical Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass corner joint on 1/2" steel plate in the vertical up position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>
Unit 5 Week 8 Days 36,37,38,39,40		GMAW Welding in Overhead Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>          1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles          2. Students will weld a multi pass T joint on 1/4" steel plate in the overhead position</p> <p><b>ASSESSMENT</b>          Instructor will give grade for weld</p>	What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?	<p><b>Skill Standards:</b>  <b>AD002</b>          Demonstrate ability to learn new process steps          OD008          Identify the safety and proper use of the tools of the trade          EA009          Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>          RST-4          RST-7          GC-1          G-GMD-3</p>

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Time Wks/Month	Dates Taught	Unit Topics	Content Tasks (#'s and E, I, C), Activities, Assessment	Essential Questions	Core Content Skill Standards
Unit 5 Week 9 Days 41,42,43,44,45		GMAW Welding in Overhead Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles  2. Students will weld a multi pass Lap joint on 1/2" steel plate in the overhead position</p> <p><b>ASSESSMENT</b>  Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4  RST-7  GC-1  G-GMD-3</p>
Unit 5 Week 10 Days 46,47,48		GMAW Welding in Overhead Position	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines</p>

			<p><b>2.Students will weld a multi pass corner joint on 1/2” steel plate in the overhead position</b></p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>		<p><b>Core Content:</b> RST-2 RST-4 RST-7 GC-1 G-GMD-3</p>
Unit 6 Week 10 Days 49,50	Identification and selection of GMAW Filler Metals	<p><b>TASKS</b> WLD 140 TASK 6-Identify and select filler materials for GMAW processes</p> <p><b>ACTIVITIES</b> 1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles 2.Show power point on identification and selection of GMAW filler metals and lecture 3.Discuss best uses of each filler metal 4.Review for test</p> <p><b>ASSESSMENT</b> Written test will be given</p>	<p>How are filler metals for GMAW classified? What filler metal is best used on a particular application? What filler metal should I use for aluminum and stainless steel alloys?</p>	<p><b>Skill Standards:</b> AD002 Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> RST-2 RST-4 RST-7</p>	
Unit 7 Week 11 Days 51,52,53,54,55	GMAW and FCAW Welding on grove joints,Aluminum and Stainless Steel	<p><b>TASKS</b> WLD 141 TASK 2- Use lab equipment and tools WLD 140 TASK 4- Apply knowledge of the effects of variables of GMAW to weld plate and pipe WLD 140 TASK 5- Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b></p>	<p>What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?</p>	<p><b>Skill Standards:</b> AD002 Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009</p>	

			<p>1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</p> <p>2. Students will use GMAW process to weld an open v butt joint on 3/8" steel plate with 30 degree bevel in the vertical up position</p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>		<p>Comply with safety guidelines</p> <p><b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3</p>
<p>Unit 7 Week 12 Days 56,57,58,59,60</p>		<p>GMAW and FCAW Welding on grove joints, Aluminum and Stainless Steel</p>	<p><b>TASKS</b> <b>WLD 141 TASK 2-</b> Use lab equipment and tools <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b> 1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles 2. Students will use FCAW process to weld an open v butt joint with backing plate on 1" steel plate with 22.5 degree bevel in the vertical up position</p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?</p>	<p><b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3</p>
<p>Unit 7 Week 13 Days 61,62,63,64,65</p>		<p>GMAW and FCAW Welding on grove joints, Aluminum and Stainless Steel</p>	<p><b>TASKS</b> <b>WLD 141 TASK 2-</b> Use lab equipment and tools <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p>	<p>What voltage and wire speed is required to make this weld? What is the proper weld speed and</p>	<p><b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008</p>

			<p><b>ACTIVITIES</b></p> <ol style="list-style-type: none"> <li>1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</li> <li>2. Students will use FCAW process to weld an open v butt joint with backing plate on 1" steel plate with 22.5 degree bevel in the overhead position</li> </ol> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<p>manipulation of gun to make this weld? How can I make my welds better?</p>	<p>Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3</p>
<p>Unit 7 Week 14 Days 66,67,68,69,70</p>		<p>GMAW and FCAW Welding on grove joints, Aluminum and Stainless Steel</p>	<p><b>TASKS</b></p> <p><b>WLD 141 TASK 2-</b> Use lab equipment and tools <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b></p> <ol style="list-style-type: none"> <li>1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</li> <li>2. Students will weld a multi pass T joint on 1/4" Aluminum and Stainless steel plate in the flat position</li> </ol> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld? What is the proper weld speed and manipulation of gun to make this weld? How can I make my welds better?</p>	<p><b>Skill Standards:</b> <b>AD002</b> Demonstrate ability to learn new process steps OD008 Identify the safety and proper use of the tools of the trade EA009 Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3</p>

Time Wks/Month	Dates Taught	Unit Topics	Content Tasks (#'s and E, I, C), Activities, Assessment	Essential Questions	Core Content Skill Standards
Unit 7 Week 15 Days 71,72,73,74,75		GMAW and FCAW Welding on grove joints,Aluminum and Stainless Steel	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles  2.Students will weld a multi pass lap joint on 1/4” Aluminum and Stainless steel plate in the flat position</p> <p><b>ASSESSMENT</b>  Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4  RST-7  GC-1  G-GMD-3</p>
Unit 7 Week 16 Days 76,77,78,79,80		GMAW and FCAW Welding on grove joints,Aluminum and Stainless Steel	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4</p>

			<p><b>2.Students will weld a multi pass T joint on 1/4” Aluminum and Stainless steel plate in the vertical down position</b></p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>		<p>RST-7 GC-1 G-GMD-3</p>
<p>Unit 7 Week 17 Days 81,82,83,84,85</p>		<p>GMAW and FCAW Welding on grove joints,Aluminum and Stainless Steel</p>	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b>  <b>1. Students will answer a daily math problem on whiteboard with fractions, decimals, angles, and circles</b>  <b>2.Students will weld a multi pass lap joint on 1/4” Aluminum and Stainless steel plate in the vertical down position</b></p> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?  How can I make my welds better?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009  Comply with safety guidelines  <b>Core Content:</b>  <b>RST-2</b>  RST-4  RST-7  GC-1  G-GMD-3</p>
<p>Unit 7 Week 18 Days 86,87,88,89,90</p>		<p>GMAW and FCAW Welding on grove joints,Aluminum and Stainless Steel</p>	<p><b>TASKS</b>  <b>WLD 141 TASK 2-</b> Use lab equipment and tools  <b>WLD 140 TASK 4-</b> Apply knowledge of the effects of variables of GMAW to weld plate and pipe  <b>WLD 140 TASK 5-</b> Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels</p> <p><b>ACTIVITIES</b></p>	<p>What voltage and wire speed is required to make this weld?  What is the proper weld speed and manipulation of gun to make this weld?</p>	<p><b>Skill Standards:</b>  <b>AD002</b>  Demonstrate ability to learn new process steps  OD008  Identify the safety and proper use of the tools of the trade  EA009</p>

			<ol style="list-style-type: none"> <li>1. Students will be given 3 extra days to finish all the welds required for class.</li> <li>2. Last 2 days of class will be spent cleaning shop for next semester.</li> </ol> <p><b>ASSESSMENT</b> Instructor will give grade for weld</p>	How can I make my welds better?	Comply with safety guidelines <b>Core Content:</b> <b>RST-2</b> RST-4 RST-7 GC-1 G-GMD-3
			<p><b>TASKS</b></p> <p><b>ACTIVITIES</b></p> <p><b>ASSESSMENT</b></p>		
			<p><b>TASKS</b></p> <p><b>ACTIVITIES</b></p> <p><b>ASSESSMENT</b></p>		
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