

Welding Technologies 1 & 2
Scope & Sequence: Year 1

Semester 1		Semester 2	
Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Technical Standards: 1.0, 2.0, 7.0 Professional Standards: 1.0, 4.0, 8.0</p> <p><u>Unit 1</u></p> <p>Introduction</p> <ul style="list-style-type: none"> • Safety, OSHA, ANSI • Safety exam <p>Technical Standards: 1.0, 2.0, 7.0 Professional Standards: 1.0, 4.0, 8.0</p> <p><u>Unit 2</u></p> <p>Oxyacetylene</p> <ul style="list-style-type: none"> • Measure and cut materials. • Oxyacetylene set up. • Safety inspections of equipment and accessories. <p>Technical Standards: 2.0 Professional Standards: 1.0, 4.0, 8.0</p> <p><u>Unit 3</u></p> <p>Blueprint Reading</p> <ul style="list-style-type: none"> • Identify basic elements of a welding drawing. • Interpret welding symbols. • Layout project according to print. 	<p>Technical Standards: 1.0, 2.0, Professional Standards: 3.0, 4.0, 8.0</p> <p><u>Unit 4</u></p> <p>SMAW Set Up</p> <ul style="list-style-type: none"> • Safety inspections of equipment. • Set up SMAW operations. • Use, storage, and handling of electrode. <p>Technical Standards: 2.0, 3.0 Professional Standards: 3.0, 4.0, 8.0</p> <p><u>Unit 5</u></p> <p>SMAW</p> <ul style="list-style-type: none"> • Safety and PPE. • Lay out and fit up of a project. • Hard surface build-up. • Perform fillet welds. 	<p>Technical Standards: 1.0, 7.0, 9.0 Professional Standards: 3.0, 4.0, 8.0</p> <p><u>Unit 6</u></p> <p>Thermal Cutting</p> <ul style="list-style-type: none"> • Perform safety inspections of equipment. • Set up and perform plasma cutting operations. • Set up and perform semi-automatic cutting equipment. <p>Technical Standards: 1.0, 9.0 Professional Standards: 4.0 8.0</p> <p><u>Unit 7</u></p> <p>Auxiliary Tools</p> <ul style="list-style-type: none"> • Use mechanical/abrasive cutting equipment. • Use multipurpose shear and punch. • Use welding related tools. • Use drilling equipment. 	<p>Technical Standards: 1.0, 2.0, 4.0, Professional Standards: 4.0, 8.0</p> <p><u>Unit 8</u></p> <p>GMAW Set Up</p> <ul style="list-style-type: none"> • Set up GMAW equipment. • Identify and handle types of filler material. • Select and use proper gases. • Explain GMAW transfer modes. <p>Technical Standards:1.0, 2.0, 4.0 Professional Standards: 4.0, 8.0</p> <p><u>Unit 9</u></p> <p>GMAW</p> <ul style="list-style-type: none"> • Set up GMAW equipment. • Identify and handle types of filler material. • Select and use proper gases. • Perform fillet welds. • Layout and fit up of a project.