

## GAS1002 - Gas Service Welding I

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| Credits:           | 3 (1/2/0)   |
| Description:       | This course provides an opportunity for students to develop the knowledge, skills and understanding required for employment in this field. Students will learn how to weld pipe utilizing oxyacetylene and gas metal arc welding, welding safety, weld faults and causes, weld joint design and fit up.   |
| Prerequisites:     |   |
| Corequisites:      |   |
| Pre/Corequisites*: |   |
| Competencies:      | <ol style="list-style-type: none"> <li>1. Explain the basics of operation for oxyfuel equipment.</li> <li>2. Set up an oxyacetylene system.</li> <li>3. Demonstrate an oxyacetylene system weld in 1G position.</li> <li>4. Demonstrate an oxyacetylene system weld in 2G position.</li> <li>5. Demonstrate an oxyacetylene system weld in 3G position.</li> <li>6. Demonstrate an oxyacetylene system weld in 4G position.</li> <li>7. Explain field joining and the qualification standards for 3/4-inch service pipe.</li> <li>8. Explain oxyfuel equipment and demonstrate safety procedures.</li> <li>9. Describe the gas metal and arc welding (GMAW) process, equipment and consumables.</li> <li>10. Demonstrate an oxyacetylene system weld in 5G position on 3/4-inch pipe.</li> <li>11. Define field joining using the gas metal and arc welding (GMAW) process.</li> <li>12. Describe the qualification procedures related to gas metal and arc welding (GMAW).</li> <li>13. Explain standards, joint configurations, terminology and pipe welding theory.</li> </ol> |
| MnTC goal areas:   | None  |

\*Can be taking as a Prerequisite or Corequisite.