Advanced Welding Technology Degree: Program Outcomes

Upon successful completion of this program, graduates will be prepared to:

1. Evaluate potential hazards and apply procedures to maintain workplace safety; demonstrate appropriate safe work habits when operating ox fuel, plasma and electric welding equipment and function safely in a welding environment.
2. Select and operate tools and equipment to support welding and related activities.
3. Read and interpret basic blueprints and welding symbols to fabricate components.
4. Perform Shielded Metal Arc Welding to industry standards and pass the AWS D1.1 Structural Unlimited Certifications.
5. Perform Gas Metal Arc Welding to industry standards.
6. Perform Flux Core Welding to industry standards and pass the AWS D1.1 Structural Unlimited Certifications.
7. Perform Gas Tungsten Arc Welding to industry standards and pass the AWS Aluminum Aerospace Certification.
8. Perform Oxy and Plasma cutting to industry standards.
9. Prioritize work assignments and use time management skills effectively.
10. Apply problem solving and decision making skills to overcome obstacles in completing objectives.
11. Demonstrate the ability to inspect the weld joint – before, after and during welding.
12. Evaluate work quality and generate recommendations for continuous improvement.
13. Apply basic math and measurement.
14. Communicate effectively, both verbally and in writing.
15. Be successfully employed in the field.
16. Demonstrate technical understanding and skills to the satisfaction of their employers.
17. Demonstrate professional and ethical work behavior.
18. Know the basic principles and application of metallurgy.
19. Know the basic principles and application of destructive and non-destructive testing.
20. Know the basic principles and application of CAD and CNC operation.
22. Estimate costs, plan and complete steel fabrication projects.
23. Demonstrate technical understanding of new technology and processes in the welding industry.