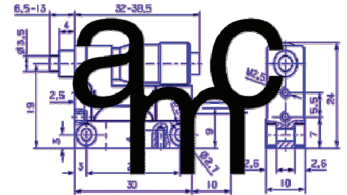


Academy for Manufacturing Careers

Robotic Welding Technician Apprenticeship



the academy for manufacturing careers

Apprentices will learn the necessary skills and earn a journeyman's certification for a Robotic Welding Technician using the latest tools in this four year, Department of Labor registered technical instruction program.



Core Classes

Industrial Blue Print Reading

Algebra

Machining Theory & Methods

Basic Gauges & Measurement

Materials/Metallurgy

Basic Industrial Electricity

Problem Solving/Lean

Industry standards, automotive OEM requirements, best practices, and requests for this training by our local manufacturers all continue to show the need for this training.

A variety of classroom instruction formats including lecture, PowerPoint, group discussion, and group exercises gives the student maximum hands-on learning opportunities.

Track Specific

Welding I

Welding II

Welding III

Basic PLC

Robotics & Material Handling

Electrical Troubleshooting

Electronics I

Introduction to Digital Electronics

Industrial Motion Control

Electric Motors & Controls

Solidworks

PLC/Robotics Interface

NOTICE OF NONDISCRIMINATORY POLICY AS TO STUDENTS

The Academy for Manufacturing Careers admits students of any race, color, national and ethnic origin, ancestry, religious creed, age, disability, marital status, sexual orientation, gender, or gender expression to all the rights, privileges, programs and activities generally accorded or made available to students at the school. It does not discriminate on the basis of race, color, national and ethnic origin, ancestry, religious creed, age, disability, marital status, sexual orientation, gender, or gender expression in administration of its educational policies, admissions policies, scholarship and loan programs, and any other school-administered programs.



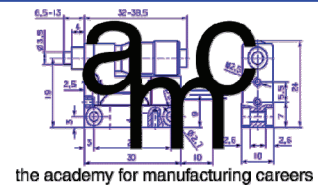
Jackson Area
Manufacturers Association
Helping Manufacturers Succeed & Grow Since 1937

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Academy for Manufacturing Careers

Robotic Welding Technician



Electrical Troubleshooting

Prerequisite: Industrial Wiring

This course explores troubleshooting in various areas such as: control circuits, combinations starters, control devices, special controls, DC motors, lightening systems with use of schematics, building drawings, and with emphasis on cutting troubleshooting time.

Basic PLC

Prerequisite: Basic Industrial Electricity

This course provides an overview of SLC and Micrologix hardware, communications, cabling, and system design. Introducing the student to RSLogix 500 and ladder programming. Instructor led labs that cover a variety of programming instructions used with SLC 500 and RSLogix 500 software,.

Welding II

This course provides GMAW (gas metal arc welding formally known as MIG welding) and GTAW (gas tungsten arc welding formally known as TIG welding) processes and techniques. Topics will include: safety, use of equipment, power sources, shielding gases, filler metals, welding techniques, troubleshooting and more.

Electronics I

This course covers solid state elements of industrial control including triggering devices, computer control issues, photo-electronics, industrial applications of electronics and other control devices.

Welding I

This course covers basic theory and fundamental application of welding as required in the metal fabrication industry. The class includes: development of basic skills in preparation, welding and cutting of metal and provides hands-on experience within shielded metal arc welding and oxy-acetylene welding.

SolidWorks Essentials - 3D Design

Using DASI SolidWorks mechanical design automation software, build parametric models of parts and assemblies and how to make drawings of them. Prerequisite: Intro to CAD.

Industrial Motion Control

This course covers motion controls as used in real world situations, including PLC, robotics, servos, sensing devices, actuators and controls.

Electrical Motor Controls

Study include single-phase motors and their operating principles, polyphaser systems and the various control devices used with these systems.

Robotics & Material Handling

This course provides an introduction to automated materials handling/ production equipment and the role of the computer/robotics in modern manufacturing systems.

Introduction to Digital Electronics

This course will provide the student the basic understanding and application of digital circuitry. Algebra and digital circuits will be stressed. These principles will be applied to understanding the concepts of microprocessors. The basic principles of microprocessors – architecture – architecture instruction set, arithmetic and logical operations, and read-only and read/write memory will be taught.



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