

**FloridaMakes**



## PROFESSIONAL DEVELOPMENT

### LEARNING PLANS FOR MANUFACTURING JOB ROLES

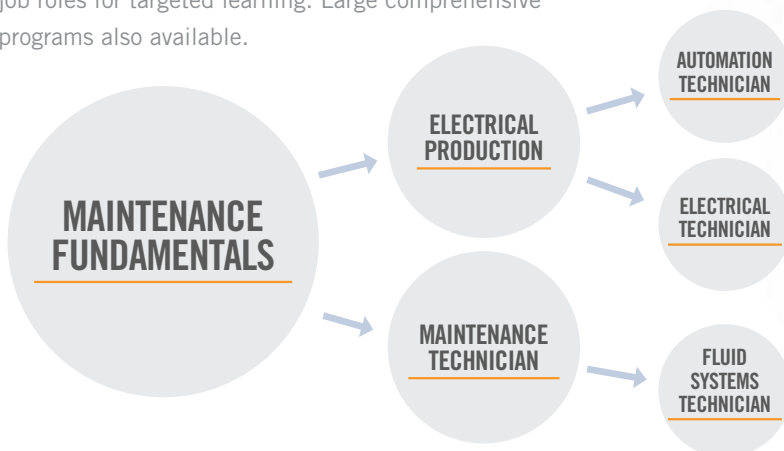
Online Training from Florida Makes and Tooling U-SME offers a quick-start, progressive road map that allows manufacturers to build career paths for employees. This online training is intended to enhance your existing on the job training, to create a job progression plan and requires minimal preparation. It is efficient, effective training that has been developed with input from manufacturing experts.

### FLEXIBLE AND CONVENIENT

Online classes are self-paced, typically taking 60 minutes to complete. They are easily and conveniently accessible on desktops and laptops, and on tablets and phones with the Tooling U-SME app.

## CAREER PATHWAYS FOR MAINTENANCE JOB ROLES

Combine job roles for learning pathways, or offer single job roles for targeted learning. Large comprehensive programs also available.



## Online Training offers:

- Content developed by industry experts
- Accessible anytime, anywhere
- Self-paced
- Predefined curriculum for each job role
- Engaging and interactive content
- Pre- and post-training knowledge assessments
- Access to Tooling U-SME's Learning Management System (LMS)
- Guidance from our Client Success team, including advice, insights, and ideas built on best practices and years of experience

To begin your training program or for more information, call Florida Makes at 407-450-7206 or email [info@floridamakes.com](mailto:info@floridamakes.com)



## MAINTENANCE FUNDAMENTAL

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|---|--|---|--|---|--|
| Math Fundamentals<br>Math: Fractions and Decimals<br>Units of Measurement<br>Basics of Tolerance<br>Blueprint Reading<br>Basic Measurement<br>Calibration Fundamentals<br>Hole Standards and Inspection | Thread Standards and Inspection<br>Intro to OSHA<br>Personal Protective Equipment<br>Noise Reduction and Hearing Conservation<br>Respiratory Safety<br>Lockout/Tagout Procedures | SDS and Hazard Communication<br>Bloodborne Pathogens<br>Walking and Working Surfaces<br>Fire Safety and Prevention<br>Flammable/Combustible Liquids<br>Hand and Power Tool Safety | Safety for Lifting Devices<br>Powered Industrial Truck Safety<br>Confined Spaces<br>Introduction to Physical Properties<br>Introduction to Mechanical Properties | Introduction to Metals<br>Ferrous Metals<br>Lean Manufacturing Overview<br>ISO 9001:2015 Review<br>Approaches to Maintenance<br>Total Productive Maintenance<br>5S Overview<br>Electrical Units | Safety for Electrical Work<br>Introduction to Mechanical Systems<br>Safety for Mechanical Work<br>Forces of Machines |
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## ELECTRICAL PRODUCTION

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| Algebra Fundamentals<br>Geometry: Lines and Angles<br>Geometry: Triangles<br>Geometry: Circles and Polygons<br>Trigonometry: The Pythagorean Theorem | Trigonometry: Sine, Cosine, Tangent<br>Essentials of Heat Treatment of Steel<br>Troubleshooting<br>Introduction to CNC Machines<br>Control Panel Functions for the | CNC Lathe<br>Control Panel Functions for the CNC Mill<br>Shift Registers<br>Introduction to Circuits<br>Introduction to Magnetism<br>DC Circuit Components | NEC Overview<br>AC Fundamentals<br>Electrical Instruments<br>Electrical Print Reading<br>Conductor Selection<br>Series Circuit Calculations<br>Parallel Circuit Calculations | Limit Switches and Proximity Sensors<br>Lubricant Fundamentals<br>Overview of Soldering<br>Relays, Contactors, and Motor Starters<br>Control Devices | Distribution Systems<br>Introduction to Electric Motors<br>Logic and Line Diagrams<br>Essentials of Leadership<br>Essentials of Communication |
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## MAINTENANCE PRODUCTION

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|---|--|--|--|--|---|
| Algebra Fundamentals<br>Geometry: Lines and Angles<br>Geometry: Triangles<br>Geometry: Circles and Polygons<br>Trigonometry: The Pythagorean Theorem<br>Trigonometry: Sine, Cosine, Tangent<br>Essentials of Heat Treatment | of Steel<br>Nonferrous Metals<br>Troubleshooting<br>Series Circuit Calculations<br>Parallel Circuit Calculations<br>Battery Selection<br>Bearing Applications<br>Spring Applications<br>Belt Drive Applications<br>Gear Applications | Reversing Motor Circuits<br>Specs for Servomotors<br>Reduced Voltage Starting<br>The Forces of Fluid Power<br>Safety for Hydraulics and Pneumatics<br>Introduction to Hydraulic Components<br>Introduction to Pneumatic Components | Introduction to Fluid Conductors<br>Fittings for Fluid Systems<br>Preventative Maintenance for Fluid Systems<br>Lubricant Fundamentals<br>Mechanical Power Variables<br>Clutch and Brake Applications<br>Intro to Machine Rigging<br>Rigging Equipment | Rigging Inspection and Safety<br>Rigging Mechanics<br>Intro to Fastener Threads<br>Overview of Threaded Fasteners<br>Tools for Threaded Fasteners<br>Overview of Non-Threaded Fasteners<br>Understanding Torque<br>Threaded Fastener Selection | Distribution Systems<br>Introduction to Electric Motors<br>Symbols and Diagrams for Motors<br>Logic and Line Diagrams<br>DC Motor Applications<br>Solenoids<br>AC Motor Applications<br>Essentials of Leadership<br>Essentials of Communication |
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## AUTOMATION TECHNICIAN

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| Bearing Applications<br>Spring Applications<br>Belt Drive Applications<br>Gear Applications<br>Introduction to PLCs<br>Hardware for PLCs<br>Basics of Ladder Logic<br>Numbering Systems and Codes<br>PLC Inputs and Outputs | Basic Programming<br>PLC Timers and Counters<br>Networking for PLCs<br>Hand-Held Programmers for PLCs<br>Overview of PLC Registers<br>PLC Program Control Instructions<br>Sequencer Instructions for PLCs | PLC Installation Practices<br>PID for PLCs<br>Data Manipulation<br>Robot Components<br>End Effectors<br>Robot Axes<br>Robot Sensors<br>Robot Maintenance<br>Robot Installations<br>Vision Systems | Industrial Network Integration<br>The Forces of Fluid Power<br>Safety for Hydraulics and Pneumatics<br>Introduction to Hydraulic Components<br>Introduction to Pneumatic Components<br>Introduction to Fluid Conductors | Fittings for Fluid Systems<br>Mechanical Power Variables<br>Clutch and Brake Applications<br>Intro to Machine Rigging<br>Rigging Equipment<br>Rigging Inspection and Safety<br>Rigging Mechanics<br>Robot Safety<br>Robot Troubleshooting<br>Concepts of Robot | Programming<br>Intro to Fastener Threads<br>Overview of Threaded Fasteners<br>Tools for Threaded Fasteners<br>Overview of Non-Threaded Fasteners<br>Understanding Torque<br>Threaded Fastener Selection |
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## ELECTRICAL TECHNICIAN

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| Nonferrous Metals<br>Battery Selection<br>Bearing Applications<br>Spring Applications<br>Belt Drive Applications<br>Gear Applications<br>Reversing Motor Circuits | Specs for Servomotors<br>Reduced Voltage Starting<br>The Forces of Fluid Power<br>Safety for Hydraulics and Pneumatics<br>Introduction to Hydraulic Components | Introduction to Pneumatic Components<br>Introduction to Fluid Conductors<br>Fittings for Fluid Systems<br>Mechanical Power Variables<br>Clutch and Brake Applications | Intro to Machine Rigging<br>Rigging Equipment<br>Rigging Inspection and Safety<br>Rigging Mechanics<br>Intro to Fastener Threads<br>Overview of Threaded Fasteners | Tools for Threaded Fasteners<br>Overview of Non-Threaded Fasteners<br>Understanding Torque<br>Threaded Fastener Selection<br>Distribution Systems<br>Symbols and Diagrams for | Motors<br>DC Motor Applications<br>Solenoids<br>AC Motor Applications |
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## FLUID SYSTEMS TECHNICIAN

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| Benchmark and Layout Operations<br>Introduction to CNC Machines<br>Control Panel Functions for the CNC Lathe<br>Control Panel Functions for the CNC Mill<br>Introduction to Circuits<br>Introduction to Magnetism | DC Circuit Components<br>NEC Overview<br>AC Fundamentals<br>Electrical Instruments<br>Electrical Print Reading<br>DC Power Sources<br>AC Power Sources<br>Conductor Selection<br>Limit Switches and Proximity | Sensors<br>Hydraulic Power Variables<br>Hydraulic Power Sources<br>Pneumatic Power Variables<br>Pneumatic Power Sources<br>Hydraulic Control Valves<br>Hydraulic Schematics and Basic Circuit Design<br>Pneumatic Control Valves | Pneumatic Schematics and Circuit Design<br>Actuator Applications<br>Hydraulic Fluid Selection<br>Contamination and Filter Selection<br>Hydraulic Principles and System Design<br>Welding Safety Essentials | PPE for Welding<br>Welding Fumes and Gases Safety<br>Electrical Safety for Welding<br>Introduction to Welding<br>Introduction to Welding Processes<br>Overview of Soldering<br>Plasma Cutting | SAW Applications<br>GMAW Applications<br>What Is Oxyfuel Welding?<br>Oxyfuel Welding Applications<br>Relays, Contactors, and Motor Starters<br>Control Devices<br>Distribution Systems |
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