# MAINTENANCE

## **PROFESSIONAL DEVELOPMENT**

IRC

#### LEARNING PLANS FOR MANUFACTURING JOB ROLES

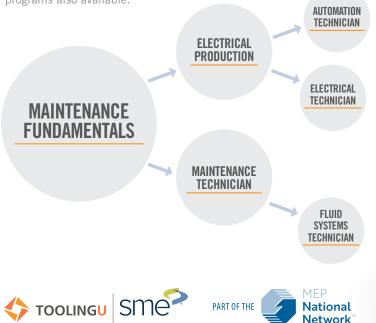
Online Training from DVIRC and Tooling U-SME offers a quick-start, progressive road map that allows manufacturers to build career paths for employees. This online training is intended to enhance your existing on the job training, to create a job progression plan and requires minimal preparation. It is 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 DVIRC at 215-464-8550 or email info@dvirc.org Thread Standards and

Personal Protective Equipment

Noise Reduction and Hearing

Lockout/Tagout Procedures

Inspection

Intro to OSHA

Conservation

Prespiratory Safety

# MAINTENANCE

### MAINTENANCE FUNDAMENTAL

Math Fundamentals Math: Fractions and Decimals Units of Measurement Basics of Tolerance Blueprint Reading Basic Measurement Calibration Fundamentals Hole Standards and Inspection

### ELECTRICAL PRODUCTION

Algebra Fundamentals Geometry: Lines and Angles Geometry: Triangles Geometry: Circles and Polygons Trigonometry: The Pythagorean Theorem

Trigonometry: Sine, Cosine, Tangent Essentials of Heat Treatment of Steel Troubleshooting Introduction to CNC Machines Control Panel Functions for the SDS and Hazard Communication Bloodborne Pathogens Walking and Working Surfaces Fire Safety and Prevention Flammable/Combustible Liquids Hand and Power Tool Safety

Control Panel Functions for the

CNC Lathe

CNC Mill

Shift Registers

Introduction to Circuits

DC Circuit Components

Introduction to Magnetism

Safety for Lifting Devices Powered Industrial Truck Safety Confined Spaces Introduction to Physical Properties Introduction to Mechanical Properties

NFC Overview

AC Fundamentals

Electrical Instruments

Conductor Selection

Electrical Print Reading

Series Circuit Calculations

Parallel Circuit Calculations

Introduction to Metals Ferrous Metals Lean Maufacturing Overview ISO 9001:2015 Review Approaches to Maintenance Total Productive Maintenance 5S Overview Electrical Units

Safety for Electrical Work Introduction to Mechanical Systems Safety for Mechanical Work Forces of Machines

Limit Switches and Proximity Sensors Lubricant Fundamentals Overview of Soldering Relays, Contractors, and Motor Starters Control Devices

Distribution Systems Introduction to Electric Motors Logic and Line Diagrams Essentials of Leadership Essentials of Communication

### MAINTENANCE PRODUCTION

of Steel

Nonferrous Metals

Series Circuit Calculations

Parallel Circuit Calculations

Troubleshooting

Battery Selection

Bearing Applications

Spring Applications

Gear Applications

Belt Drive Applications

- Algebra Fundamentals Geometry: Lines and Angles Geometry: Triangles Geometry: Circles and Polygons Trigonometry: The Pythagorean Theorem Trigonometry: Sine, Cosine, Tangent Essentials of Heat Treatment
- **AUTOMATION TECHNICIAN**
- Bearing Applications Spring Applications Belt Drive Applications Gear Applications Introduction to PLCs Hardware for PLCs Basics of Ladder Logic Numbering Systems and Codes PLC Inputs and Outputs
- Basic Programming PLC Timers and Counters Networking for PLCs Hand-Held Programmers for PLCs Overview of PLC Registers PLC Program Control Instructions Sequencer Instructions for PI Cs
- Reversing Motor Circuits Specs for Servomotors Reduced Voltage Starting The Forces of Fluid Power Safety for Hydraulics and Pneumatics Introduction to Hyudraulic Components Introduction to Pneumatic Components

PID for PLCs

End Effectors

Robot Sensors

Vision Systems

Robot Axes

Introduction to Fluid Conductors Fittings for Fluid Systems Preventative Maintenance for Fluid Systems Lubricant Fundamentals Mechanical Power Variables Clutch and Brake Applications Intro to Machine Rigging **Rigging Equipment** 

Rigging Inspection and Safety **Rigging Mechanics** Intro to Fastener Threads Overview of Threaded Fasteners Tools for Threaded Fasteners Overview of Non-Threaded Fasteners Understanding Torque Threaded Fastener Selection

Distribution Systems Introduction to Electric Motors Symbols and Diagrams for Motors Logic and Line Diagrams DC Motor Applications Solenoids AC Motor Applications Essentials of Leadership Essentials of Communication

PLC Installation Practices Data Manipulation Robot Components Pneumatics Components Components Robot Maintenance Robot Installations Conductors

Industrial Network Integration The Forces of Fluid Power Safety for Hydraulics and Introduction to Hydraulic Introduction to Pneumatic Introduction to Fluid

Fittings for Fluid Systems Mechanical Power Variables Clutch and Brake Applications Intro to Machine Rigging **Rigging Equipment** Rigging Inspection and Safety Rigging Mechanics Robot Safety Robot Troubleshooting Concepts of Robot

Programming Intro to Fastener Threads Overview of Threaded Fasteners Tools for Threaded Fasteners Overview of Non-Threaded Fasteners Understanding Torque Threaded Eastener Selection

### ELECTRICAL TECHNICIAN

Nonferrous Metals Battery Selection Bearing Applications Spring Applications Belt Drive Applications Gear Applications Reversing Motor Circuits Specs for Servomotors Reduced Voltage Starting The Forces of Fluid Power Safety for Hydraulics and Pneumatics Introduction to Hydraulic Components

Introduction to Pneumatic Components Introduction to Fluid Conductors Fittings for Fluid Systems Mechanical Power Variables Clutch and Brake Applications Intro to Machine Rigging **Rigging Equipment** Rigging Inspection and Safety Rigging Mechanics Intro to Fastener Threads Overview of Threaded Fasteners

Tools for Threaded Fasteners Overview of Non-Threaded Fasteners Understanding Torque Threaded Fastener Selection Distribution Systems Symbols and Diagrams for

Motors DC Motor Applications Solenoids AC Motor Applications

### FLUID SYSTEMS TECHNICIAN

Benchwork and Lavout Operations Introduction to CNC Machines Control Panel Functions for the CNC Lathe Control Panel Functions for the CNC Mill Introduction to Circuits Introduction to Magnetism

DC Circuit Components NFC Overview AC Fundamentals Electrical Instruments Electrical Print Reading DC Power Sources AC Power Sources Conductor Selection Limit Switches and Proximity Sensors Hydraulic Power Variables Hydraulic Power Sources Pneumatic Power Variables Pneumatic Power Sources Hydraulic Control Valves Hydraulic Schematics and Basic Circuit Design Pneumatic Control Valves

Pneumatic Schematics and Circuit Design Actuator Applications Hydraulic Fulid Selection Contamination and Filter Selection Hydraulic Principles and System Design Welding Safety Essentials

PPE for Welding Welding Fumes and Gases Safety Electrical Safety for Welding Introduction to Welding Introduction to Welding Processes Overview of Soldering Plasma Cutting

SMAW Applications GMAW Applications What Is Oxyfuel Welding? Oxyfuel Welding Applications Relays, Contactors, and Motor Starters Control Devices Distribution Systems





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