

PROFESSIONAL DEVELOPMENT

LEARNING PLANS FOR MANUFACTURING JOB ROLES

Online Training from Polaris MEP 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.

MAINTENANCE FUNDAMENTALS ELECTRICAL PRODUCTION

ELECTRICAL Technician

AUTOMATION TECHNICIAN

MAINTENANCE TECHNICIAN

FLUID Systems Technician

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







MAINTENANCE

Noise Reduction and Hearing

MAINTENANCE FUNDAMENTALS

Electrical Units Safety for Electrical Work Basic Measurement Basics of Tolerance Blueprint Reading Calibration Fundamentals Hole Standards and Thread Standards and Inspection 5S Overview Lean Manufacturing Overview Ferrous Metals

Introduction to Mechanical Safety for Mechanical Work Properties Approaches to Maintenance Introduction to Metals ISO 9001 Review

Bloodborne Pathogens Confined Spaces Fire Safety and Prevention Flammable/Combustible Liquids Hand and Power Tool Safety

Lockout/Tagout Procedures

Intro to OSHA

Conservation
evention Personal Protective Equipment
ustible Powered Industrial Truck
Safety
ool Safety Respiratory Safety
Safety for Lifting Devices

SDS and Hazard Communication Walking and Working Surfaces Math Fundamentals Math: Fractions and Decimals Units of Measurement

ELECTRICAL PRODUCTION

Control Panel Functions for the CNC Lathe Control Panel Functions for the CNC Mill Introduction to CNC Machines AC Fundamentals

DC Circuit Components Electrical Instruments Electrical Print Reading Introduction to Circuits Introduction to Magnetism NEC(R) Overview Parallel Circuit Calculations Series Circuit Calculations Troubleshooting Essentials of Heat Treatment of Steel Lubricant Fundamentals

Introduction to Physical

Introduction to Mechanical

Properties

Systems

Forces of Machines

Control Devices
Distribution Systems
Introduction to Electric Motors
Limit Switches and Proximity
Sensors
Logic and Line Diagrams

Relays, Contactors, and Motor Starters Algebra Fundamentals Geometry: Circles and Polygons Geometry: Lines and Angles Geometry: Triangles Trigonometry: Sine, Cosine, Tangent Trigonometry: The Pythagorean Theorem Essentials of Communication Essentials of Leadership Overview of Soldering

MAINTENANCE PRODUCTION

Battery Selection Parallel Circuit Calculations Series Circuit Calculations Introduction to Fastener Threads

Overview of Non-Threaded Fasteners Overview of Threaded

Fasteners
Threaded Fastener Selection

Tools for Threaded Fasteners Understanding Torque Fittings for Fluid Systems Introduction to Fluid Conductors Introduction to Hydraulic

Components
Introduction to Pneumatic
Components

Preventive Maintenance for Fluid Systems Safety for Hydraulics and Pneumatics The Forces of Fluid Power

Troubleshooting
Essentials of Heat Treatment
of Steel

Nonferrous Metals Bearing Applications Belt Drive Applications Clutch and Brake Applications Gear Applications
Lubricant Fundamentals
Mechanical Power Variables
Spring Applications
AC Motor Applications
DC Motor Applications
Distribution Systems
Introduction to Electric Motors
Logic and Line Diagrams
Reduced Voltage Starting

Reversing Motor Circuits
Solenoids
Specs for Servomotors
Symbols and Diagrams for
Motors
Intro to Machine Rigging
Rigging Equipment
Rigging Inspection and Safety
Rigging Mechanics
Algebra Fundamentals

PLC Program Control

Sequencer Instructions for

Instructions

PI Cs

Geometry: Circles and Polygons Geometry: Lines and Angles Geometry: Triangles Trigonometry: Sine, Cosine, Tangent Trigonometry: The Pythagorean Theorem Essentials of Communication

AUTOMATION TECHNICIAN

Introduction to Fastener Threads

Overview of Non-Threaded Fasteners

Overview of Threaded Fasteners

Threaded Fastener Selection Tools for Threaded Fasteners Understanding Torque Fittings for Fluid Systems Introduction to Fluid Conductors

Introduction to Hydraulic Components Introduction to Pneumatic Components

Safety for Hydraulics and Pneumatics

The Forces of Fluid Power Bearing Applications

Belt Drive Applications
Clutch and Brake Applications
Gear Applications
Mechanical Power Variables
Spring Applications
Basic Programming for PLCs
Basics of Ladder Logic
Data Manipulation
Hand-Held Programmers
of PLCs

Hardware for PLCs
Introduction to PLCs
Networking for PLCs
Numbering Systems and
Codes
Overview of PLC Registers
PID for PLCs

Codes
Overview of PLC Registers
PID for PLCs
PLC Counters and Timers
PLC Inputs and Outputs
PLC Installation Practices
Intro to Machine Rigging
Rigging Equipment
Rigging Equipment
Rigging Mechanics
Concepts of Robot
Programming

End Effectors
Robot Axes
Robot Components
Robot Installations
Robot Maintenance
Robot Safety
Robot Sensors
Robot Troubleshooting
Vision Systems

ELECTRICAL TECHNICIAN

Battery Selection Introduction to Fastener Threads

Overview of Non-Threaded Fasteners

Overview of Threaded Fasteners Threaded Fastener Selection Tools for Threaded Fasteners Understanding Torque Fittings for Fluid Systems Introduction to Fluid Conductors Introduction to Hydraulic Components Introduction to Pneumatic Components Safety for Hydraulics and

Pneumatics
The Forces of Fluid Power

Nonferrous Metals Bearing Applications Belt Drive Applications Clutch and Brake Applications Gear Applications Mechanical Power Variables Spring Applications

AC Motor Applications DC Motor Applications Distribution Systems Reduced Voltage Starting Reversing Motor Circuits Solenoids Specs for Servomotors Symbols and Diagrams for Motors Intro to Machine Rigging Rigging Equipment Rigging Inspection and Safety Rigging Mechanics

FLUID SYSTEMS TECHNICIAN

Control Panel Functions for the CNC Lathe Introduction to CNC Machines AC Fundamentals

AC Power Sources
Conductor Selection
DC Circuit Components
DC Power Sources
Electrical Instruments

Electrical Print Reading Introduction to Circuits Introduction to Magnetism NEC(R) Overview Actuator Applications Contamination and Filter Selection

Hydraulic Control Valves

Hydraulic Fluid Selection

Hydraulic Power Sources Hydraulic Power Variables Hydraulic Principles and System Design

Hydraulic Schematics and Basic Circuit Design Pneumatic Control Valves Pneumatic Power Sources Pneumatic Power Variables Pneumatic Schematics and Basic Circuit Design Benchwork and Layout Operations Control Devices Distribution Systems Limit Switches and Proximity

Relays, Contactors, and Motor Starters Electrical Safety for Welding GMAW Applications Introduction to Welding Introduction to Welding Processes Overview of Soldering Oxyfuel Welding Applications Plasma Cutting PPE for Welding SMAW Applications Welding Furnes and Gases Safety Welding Safety Essentials What Is Oxyfuel Welding?

— New content is always being added. Check with your representative for the most current list of classes. —





