# MAINTENANCE

# TRAINING PACKAGES

#### LEARNING PLANS FOR MANUFACTURING JOB ROLES

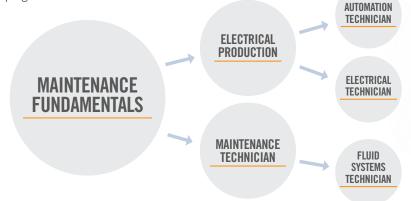
Training Packages from Tooling U-SME offer quick-start, progressive road maps in various functional areas that allow manufacturers to build career paths for employees. They are intended to enhance your existing OJT and help you create a job progression plan. Unlike many other training programs, these packages require minimal preparation. They are efficient, effective training, 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 are also available.



## Training Packages offer:

- 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



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# MAINTENANCE

## MAINTENANCE FUNDAMENTALS

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

Thread Standards and

Personal Protective Equipment

Noise Reduction and Hearing

Lockout/Tagout Procedures

Inspection

Intro to OSHA

Conservation

Prespiratory Safety

CNC Lathe Control Panel Functions for the CNC Mill Shift Registers Introduction to Circuits Introduction to Magnetism DC Circuit Components Control Panel Functions for the

**Reversing Motor Circuits** 

Reduced Voltage Starting The Forces of Fluid Power

Safety for Hydraulics and

Introduction to Hyudraulic

Introduction to Pneumatic

Pneumatics

Components

Components

Specs for Servomotors

SDS and Hazard

Communication

Liquids

Bloodborne Pathogens

Walking and Working Surfaces

Fire Safety and Prevention

Hand and Power Tool Safety

Flammable/Combustible

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

NEC Overview

AC Fundamentals

Electrical Instruments

Conductor Selection

Electrical Print Reading

Series Circuit Calculations

Parallel Circuit Calculations

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

Introduction to Metals

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

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

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

Distribution Systems

Motors

Solenoids

Introduction to Electric Motors

Symbols and Diagrams for

Logic and Line Diagrams

DC Motor Applications

AC Motor Applications

Essentials of Leadership

Essentials of Communication

## MAINTENANCE PRODUCTION

of Steel

Nonferrous Metals

Battery Selection

Bearing Applications

Spring Applications

Gear Applications

Belt Drive Applications

Troubleshooting Series Circuit Calculations

Parallel Circuit Calculations

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 PLĊs

PLC Installation Practices PID for PI Cs Data Manipulation Robot Components End Effectors Robot Axes Robot Sensors

Industrial Network Integration 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 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 Fastener Selection

#### ELECTRICAL TECHNICIAN

Nonferrous Metals Battery Selection Bearing Applications Spring Applications Belt Drive Applications Gear Applications Reversing Motor Circuits

CNC Lathe

CNC Mill

#### Specs for Servomotors Reduced Voltage Starting The Forces of Fluid Power Safety for Hydraulics and Pneumatics Introduction to Hydraulic Components

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 Layout DC Circuit Components Operations NEC Overview Introduction to CNC Machines

AC Fundamentals Control Panel Functions for the Electrical Instruments Electrical Print Reading Control Panel Functions for the DC Power Sources AC Power Sources Introduction to Circuits Conductor Selection Introduction to Magnetism 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 Hvdraulic 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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Robot Maintenance Robot Installations Vision Systems Introduction to Pneumatic

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