

PROFESSIONAL DEVELOPMENT

MANUFACTURING NETWORK

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 MACHINING JOB ROLFS

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



DIEMAKER

TOOLMAKER/

experts

Accessible anytime, anywhere

Content developed by industry

Online Training offers:

- 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









PRODUCTION MACHINIST

CNC

PROGRAMMER

MACHINING

MACHINING FUNDAMENTALS

Basic Measurement Basics of Tolerance Blueprint Reading Calibration Fundamentals Hole Standards and Inspection Thread Standards and Inspection

Lean Manufacturing Overview

Essentials of Heat Treatment of Steel Ferrous Metals Introduction to Mechanical Properties Band Saw Operation Basic Cutting Theory Cutting Processes Introduction to Metal Cutting Fluids Metal Cutting Fluid Safety

Overview of Machine Tools ISO 9001 Review Bloodborne Pathogens Fire Safety and Prevention Hand and Power Tool Safety Intro to OSHA Lockout/Tagout Procedures

Noise Reduction and Hearing Personal Protective Equipment Powered Industrial Truck Safety Safety for Lifting Devices SDS and Hazard Communication Walking and Working Surfaces Geometry: Circles and Polygons

Geometry: Lines and Angles Geometry: Triangles Math Fundamentals Math: Fractions and Decimals Trigonometry: Sine, Cosine, Tangent Units of Measurement

GRINDING TECHNICIAN

Basic Grinding Theory Basics of the Centerless Grinder Basics of the Cylindrical Grinder Basics of the Surface Grinder Centerless Grinder Operation Cylindrical Grinder Operation Dressing and Truing Grinding Ferrous Metals

Grinding Nonferrous Metals Grinding Processes Grinding Safety Grinding Variables Grinding Wheel Geometry Grinding Wheel Materials Introduction to Grinding Fluids Setup for the Centerless Grinder Setup for the Cylindrical Grinder Setup for the Surface Grinder Surface Grinder Operation Basics of G Code Programming Introduction to CNC Machines Introduction to Fastener Threads Introduction to GD&T Major Rules of GD&T

Surface Texture and Inspection Metrics for Lear Process Flow Charting SPC Overview Strategies for Setup Reduction Troubleshooting Essentials of Communication

Chucks, Collets, and Vises Clamping Basics Locating Devices Supporting and Locating Principles

MACHINE OPERATOR

Basics of G Code Programming Basics of the CNC Lathe Basics of the CNC Mill Control Panel Functions for the CNC Lathe Control Panel Functions for the CNC Mill

Coordinates for the CNC Lathe Coordinates for the CNC Mill Introduction to CNC Machines Offsets on the CNC Lathe Offsets on the CNC Mill Introduction to Fastener Threads Surface Texture and Inspection

SPC Overview Benchwork and Layout Operations Engine Lathe Basics Engine Lathe Operation Engine Lathe Setup Holemaking on the Manual Mill Manual Mill Basics

Manual Mill Operation Manual Mill Setup Classification of Steel Intro to FDM Safety for Metal Cutting Machine Guarding Chucks, Collets, and Vises

Essentials of Leadership

Clamping Basics Locating Devices Supporting and Locating Principles

CNC PROGRAMMER

Calculations for Programming the Lathe

Calculations for Programming the Mill Canned Cycles for the Lathe Canned Cycles for the Mill

Creating a CNC Milling Program Creating a CNC Turning Program Introduction to CAD and CAM for Machining

In-Line Inspection Applications

Introduction to GD&T Major Rules of GD&T Intro to Six Sigma Metrics for Lean

Introduction to Metals Speed and Feed for the Lathe Speed and Feed for the Mill Quality and Customer Service

Automated Systems and Control Robot Axes

PRODUCTION MACHINIST

Calculations for Programming the Lathe Calculations for Programming the Mill

Canned Cycles for the Lathe Canned Cycles for the Mill Creating a CNC Milling Program

Creating a CNC Turning Program Introduction to GD&T Major Rules of GD&T Process Flow Charting Strategies for Setup Reduction

Taper Turning on the Engine Lathe Threading on the Engine Lathe ANSI Insert Selection Basic Cutting Theory Carbide Grade Selection

Cutting Tool Materials Drill Tool Geometry Impact of Workpiece Materials Lathe Tool Geometry Mill Tool Geometry Optimizing Tool Life and Process Speed and Feed for the Lathe Speed and Feed for the Mill Essentials of Communication Essentials of Leadership

TOOLMAKER AND DIEMAKER

Basic Grinding Theory Basics of the Cylindrical Grinder Basics of the Surface Grinder Cylindrical Grinder Operation

Dressing and Truing Grinding Ferrous Metals Grinding Nonferrous Materials Grinding Processes

Grinding Safety Grinding Variables Grinding Wheel Geometry Grinding Wheel Materials

Introduction to Grinding Fluids Setup for the Cylindrical Grinder Setup for the Surface Grinder Surface Grinder Operation

Die Cutting Variables Material Tests for Welding Fixture Design Basics

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







