TURNKEY TRAINING

LEARNING PLANS FOR MANUFACTURING JOB ROLES

Turnkey Training from Tooling U-SME offers a quick-start, progressive road map that allows manufacturers to build career paths for employees. Turnkey Training is intended to enhance your existing OJT and help you create a job progression plan. Unlike many other training programs, Turnkey Training requires minimal preparation. It is efficient, effective training that has been developed with input from manufacturing experts.

FLEXIBLE AND CONVENIENT

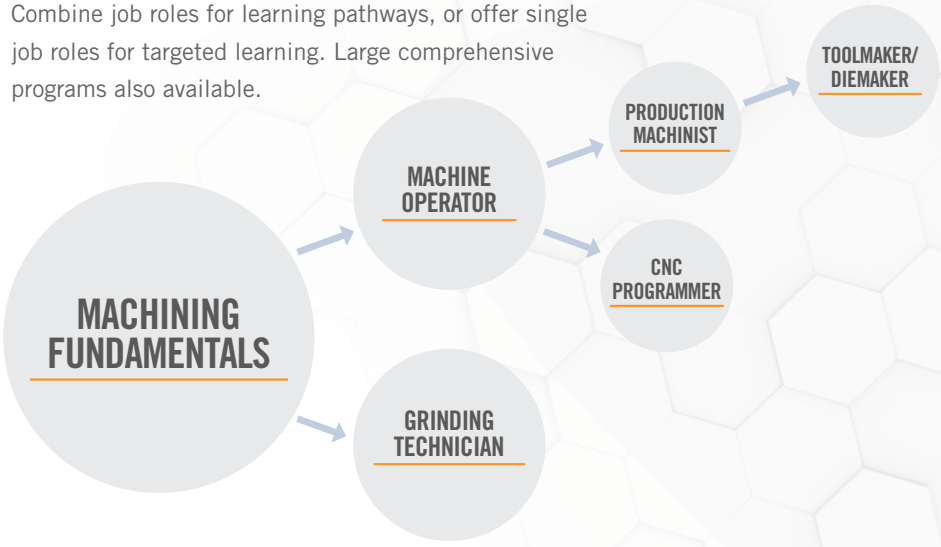
Online classes are self-paced, typically taking 60 minutes to complete. On average, employees can progress through a job role in one year with as little as 4 hours a month spent online.

Turnkey Training offers:

- Predefined curriculum for each job role
- Engaging and interactive online classes
- Supplemental videos and a reinforcement task for each class
- Pre- or post-training knowledge assessments
- Access to Tooling U-SME's LMS
- Guidance from our Client Success team, including advice, insights, and ideas built on best practices and years of experience

CAREER PATHWAYS FOR MACHINING JOB ROLES

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



Choose a starting point based on employee's experience or company goals for a quick-start training solution.

MACHINING

MACHINING FUNDAMENTALS Approximately 2 hours per month

- Basic Measurement
- Basics of Tolerance
- Blueprint Reading
- Calibration Fundamentals
- Hole Standards and Inspection
- Thread Standards and Inspection
- 5S Overview
- 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 Conservation
- 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 Approximately 3 hours per month

- 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 Lean
- Process Flow Charting
- SPC Overview
- Strategies for Setup Reduction
- Troubleshooting
- Essentials of Communication
- Essentials of Leadership
- Chucks, Collets, and Vises
- Clamping Basics
- Locating Devices
- Supporting and Locating Principles

MACHINE OPERATOR Approximately 2 hours per month

- 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 EDM
- Safety for Metal Cutting
- Machine Guarding
- Chucks, Collets, and Vises
- Clamping Basics
- Locating Devices
- Supporting and Locating Principles

CNC PROGRAMMER Approximately 2 hours per month

- 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 Approximately 2 hours per month

- 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
- Metrics for Lean
- Process Flow Charting
- Strategies for Setup Reduction
- Troubleshooting
- 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 Approximately 2 hours per month

- 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