ENGINEERING

MISSOURI ASSOCIATION OF MANUFACTURERS
mamstrong.org

PROFESSIONAL DEVELOPMENT

LEARNING PLANS FOR MANUFACTURING JOB ROLES

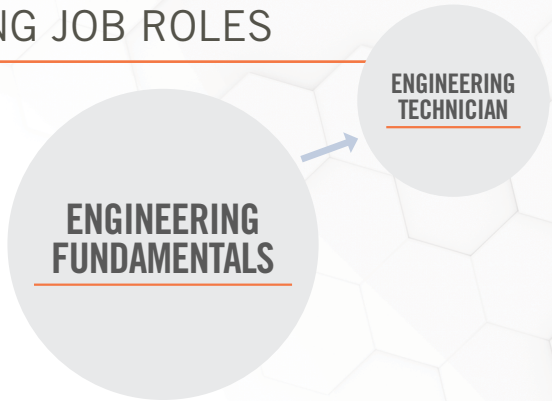
Training Packages from Tooling U-SME offer quick-start, progressive road maps in various functional areas that allow manufacturers to build career paths for employees. They are intended to enhance your existing OJT and help you create a job progression plan. Unlike many other training programs, these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

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

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To begin your training program or for more information, contact Matheson Eaton at **417-863-7262** or **workforce@mamstrong.org.**

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

ENGINEERING

ENGINEERING FUNDAMENTALS

- Additive Manufacturing Methods and Materials
- Additive Manufacturing Safety
- Introduction to Additive Manufacturing
- Introduction to CAD and CAM for Machining
- AC Fundamentals
- DC Circuit Components
- Electrical Units
- Introduction to Circuits
- Introduction to Assembly
- Basics of Tolerance
- Blueprint Reading
- Lean Manufacturing Overview
- Essentials of Heat Treatment of Steel
- Introduction to Ceramics
- Introduction to Composites
- Introduction to Mechanical Properties
- Introduction to Metals
- Introduction to Physical Properties
- Introduction to Plastics
- Cutting Processes
- Algebra Fundamentals
- Geometry: Circles and Polygons
- Geometry: Lines and Angles
- Geometry: Triangles
- Statistics
- Trigonometry: Sine, Cosine, Tangent
- Trigonometry: The Pythagorean Theorem
- Units of Measurement

ENGINEERING TECHNICIAN

- Basics of G Code Programming
- Parallel Circuit Calculations
- Series Circuit Calculations
- Introduction to Hydraulic Components
- Introduction to Pneumatic Components
- The Forces of Fluid Power
- Introduction to GD&T
- SPC Overview
- Troubleshooting
- Classification of Steel
- Ferrous Metals
- Hardness Testing
- Nonferrous Metals
- Thermoplastics
- Thermosets
- Forces of Machines
- Power Transmission Components
- Drill Tool Geometry
- Lathe Tool Geometry
- Mill Tool Geometry
- Basics of Ladder Logic
- Introduction to PLCs
- PLC Timers and Counters
- Basic Ladder Diagram Programming for Siemens PLCs
- Basics of Siemens PLCs
- Siemens PLC Communication
- Equipment/Tool Design and Development
- ISO 9001 Review
- Process Design and Development
- Product Design and Development
- Production System Design and Development
- Quality and Customer Service
- Automated Systems and Control
- Hand and Power Tool Safety
- Applied and Engineering Sciences
- Manufacturing Process Applications: Part I
- Manufacturing Process Applications: Part II
- Punch and Die Operations
- Manufacturing Management
- Personal Effectiveness
- Introduction to Welding Processes
- Fixture Design Basics
- Supporting and Locating Principles

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

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