LEARNING PLANS FOR MANUFACTURING JOB ROLES
Online Training from the Center for Economic Growth 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 ENGINEERING JOB ROLES
Combine job roles for learning pathways, or offer single job roles for targeted learning. Large comprehensive programs 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

To begin your training program or for more information, contact us at (518) 465-8975 x244 or workforce@ceg.org
Choose a starting point based on employee’s experience or company goals for a quick-start training solution.

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
Geometry: Circles and Polygons
Geometry: Lines and Angles
Geometry: Triangles
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 GDT
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

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