Manufacturing Awareness introduces basic concepts in the following functional areas:

- Welding
- Assembly
- Maintenance
- Machining
- Composites
- Stamping/Forming/Fabrication
- Welding

LEARNING PLANS FOR MANUFACTURING JOB ROLES

Online Training from The Ohio State University Business Training & Educational Services 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.

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

For more information, call Melanie Garcia, Corporate Training Account Executive, Wooster, OH 330.202.3524, or email garcia.301@osu.edu.
MANUFACTURING AWARENESS

MANUFACTURING

**Basic Measurement**
- Calibration Fundamentals
- 5S Overview
- Lean Manufacturing Overview

**Introduction to Mechanical Properties**
- Ferrous Metals

**Nonferrous Metals**
- ISO 9001: Review
- Fire Safety and Prevention
- Flammable/Combustible Liquids

**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

**ASSEMBLY**

**Types of Adhesives**
- Introduction to Assembly

**Overview of Non-Threaded Fasteners**
- Overview of Threaded Fasteners

**Safety for Assembly**
- Threaded Fastener Selection

**Tools for Threaded Fasteners**
- Basic Measurement
- Calibration Fundamentals
- Thread Standards and Inspection
- Nonferrous Metals

**Introduction to Mechanical Properties**
- Nonferrous Metals
- ISO 9001: Review
- Lean Manufacturing Overview

**Intro to Machine Rigging**
- Lifting and Moving Equipment
- Rigging Equipment
- Rigging Inspection and Safety Ergonomics
- Fire Safety and Prevention

**Flammable/Combustible Liquids**
- 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

**COMPOSITES**

**Advanced Materials for Composites**
- Advanced Thermoset Resins for Composites

**Overview of Compression Molding**
- Intro to Lay-up and Spray-up Molding

**Tools for Threaded Fasteners**
- Basic Measurement
- Calibration Fundamentals
- Thread Standards and Inspection
- Nonferrous Metals

**Introduction to Mechanical Properties**
- Nonferrous Metals
- ISO 9001: Review
- Lean Manufacturing Overview

**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

**MACHINING**

**Basics of the Centerless Grinder**
- Basics of the Cylindrical Grinder
- Basics of the Surface Grinder Grinding Processes
- Basics of the CNC Lathe
- Basics of the CNC Mill

**Introduction to Mechanical Properties**
- Coordinate for the CNC Lathe
- Coordinate for the CNC Mill
- Introduction to CNC Machines
- Basic Measurement
- Calibration Fundamentals
- 5S Overview
- Lean Manufacturing Overview
- Engine Lathe Basics

**Manual Mill Basics**
- Ferrous Metals
- Introduction to Mechanical Properties
- Introduction to Physical Properties

**Basic Cutting Theory**
- Cutting Processes
- Overview of Machine Tools
- ISO 9001: Review
- Personal Protective Equipment
- Flammable/Combustible Liquids

**Lockout/Tagout Procedures**
- Noise Reduction and Hearing Conservation
- SDS and Hazard Communication
- Walking and Working Surfaces
- Introduction to Hydraulic Components

**Introduction to Magnetism**
- Introduction to Pneumatic Components
- Safety for Hydraulics and Pneumatics
- The Forces of Fluid Power

**MAINTENANCE**

**5S Overview**
- Calibration Fundamentals
- Introduction to Mechanical Properties
- Introduction to Physical Properties
- Lean Manufacturing Overview
- Ferrous Metals

**Introduction to Mechanical Systems**
- Introduction to Metals
- Nonferrous Metals
- Electrical Units
- Forces of Machines
- Safety for Electrical Work
- Safety for Mechanical Work

**Lubricant Fundamentals**
- Mechanical Power Variables
- Basics of Siemens PLCs
- Intro to OSHA
- Introduction to PLCs
- ISO 9001: Review
- Personal Protective Equipment
- Fire Safety and Prevention

**Lockout/Tagout Procedures**
- Noise Reduction and Hearing Conservation
- SDS and Hazard Communication
- Walking and Working Surfaces
- Flammable/Combustible Liquids

**Safety for Lifting Devices**
- Powered Industrial Truck Safety
- Basic Measurement
- DC Circuit Components
- Introduction to Hydraulic Components
- Die Components
- Punch and Die Operations

**FORMING FABRICATING STAMPING**

**Basic Measurement**
- Calibration Fundamentals
- 5S Overview
- Lean Manufacturing Overview
- Ferrous Metals

**Introduction to Mechanical Properties**
- Introduction to Metals
- Nonferrous Metals
- ISO 9001: Review
- Fire Safety and Prevention
- Flammable/Combustible Liquids

**Nonferrous Metals**
- Overview of Machine Tools
- Press Brake Components
- ISO 9001: Review
- Fire Safety and Prevention
- 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
- Manufacturing Process Applications: Part I

**Die Components**
- Press Basics
- Punch and Die Operations

**WELDING**

**Basic Measurement**
- Calibration Fundamentals
- 5S Overview
- Lean Manufacturing Overview
- Ferrous Metals

**Introduction to Metals**
- Nonferrous Metals
- ISO 9001: Review
- Fire Safety and Prevention
- Flammable/Combustible Liquids

**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
- Electrical Power for Arc Welding
- Electrical Safety for Welding

**Geometry Fundamentals for Welding**
- Overview of Weld Types
- PPE for Welding
- Welding Ferrous Metals
- Welding Fuels and Gases
- Safety
- Welding Nonferrous Metals
- Welding Safety Essentials

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

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