WELDING



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 WELDING JOB ROLES

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

WELDING

GMAW/FCAW/

SUBMERGED ARC/ GTAW/SMAW

WELDING

WELDING FUNDAMENTALS

SMAW Welding

GTAW WELDING

FABRICATION

AND REPAIR

GMAW/FCAW/ SUBMERGED ARC WELDING

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 303.709.9054 or visit https://manufacturersedge.com/tooling-u/

WELDING

WELDING FUNDAMENTALS

Introduction to CAD and CAM for Machining
Blueprint Reading

Safety for Metal Cutting
Bloodborne Pathogens
Confined Spaces
Environmental Safety Hazards

Fire Safety and Prevention Flammable/Combustible Liquids Hand and Power Tool Safety Intro to OSHA

Lockout/Tagout Procedures Machine Guarding Noise Reduction and Hearing Conservation

Personal Protective Equipment Powered Industrial Truck Safety Respiratory Safety Safety for Lifting Devices SDS and Hazard Communication Walking and Working Surfaces
Units of Measurement
Electrical Safety for Welding
Geometry Fundamentals for Welding
Math Fundamentals for Welding
Overview of Weld Defects
Oxyfuel Cutting Applications

Plasma Cutting
PPE for Welding
Thermal Cutting Overview
Welding Furnes and Gases Safety
Welding Safety Essentials
Welding Symbols and Codes

GMAW FCAW SUB ARC

AC Fundamentals
AC Power Sources
Battery Selection
Conductor Selection
DC Circuit Components
DC Power Sources
Electrical Instruments

Electrical Print Reading

Electrical Units
Introduction to Circuits
Introduction to Magnetism
NEC(R) Overview
Parallel Circuit Calculations
Safety for Electrical Work
Series Circuit Calculations

Total Productive Maintenance Troubleshooting Ferrous Metals Introduction to Metals Nonferrous Metals Safety for Mechanical Work Approaches to Maintenance Essentials of Communication Personal Effectiveness Advanced GMAW Applications Electrical Power for Arc Welding FCAW Applications GMAW Applications Introduction to FCAW Introduction to GMAW
Introduction to Welding
Introduction to Welding Processes
Material Tests for Welding
Overview of Weld Types
Welding Ferrous Metals
Welding Nonferrous Metals

GTAW

AC Fundamentals
AC Power Sources
Battery Selection
Conductor Selection
DC Circuit Components
DC Power Sources
Electrical Instruments

Electrical Print Reading

Electrical Units Introduction to Circuits Introduction to Magnetism NEC(R) Overview Parallel Circuit Calculations Safety for Electrical Work Series Circuit Calculations Total Productive Maintenance
Troubleshooting
Classification of Steel
Exotic Alloys
Ferrous Metals
Introduction to Mechanical Properties
Introduction to Metals

Introduction to Physical Properties Nonferrous Metals Safety for Mechanical Work Approaches to Maintenance Essentials of Communication Personal Effectiveness GTAW Applications

Introduction to GTAW
Introduction to Welding
Introduction to Welding Processes
Material Tests for Welding
Overview of Weld Types
Welding Ferrous Metals
Welding Nonferrous Metals

SMAW

AC Fundamentals
AC Power Sources
Battery Selection
Conductor Selection
DC Circuit Components
DC Power Sources
Flectrical Instruments

Electrical Print Reading
Electrical Units
Introduction to Circuits
Introduction to Magnetism
NEC(R) Overview
Parallel Circuit Calculations
Safety for Electrical Work

Troubleshooting
Ferrous Metals
Introduction to Mechanical Properties
Introduction to Metals
Introduction to Physical Properties

Series Circuit Calculations

Total Productive Maintenance

Nonferrous Metals
Safety for Mechanical Work
Approaches to Maintenance
Essentials of Communication
Personal Effectiveness
Electrical Power for Arc Welding
Introduction to SMAW

Introduction to Welding
Introduction to Welding Processes
Material Tests for Welding
Overview of Weld Types
SMAW Applications
Welding Ferrous Metals
Welding Nonferrous Metals

FABRICATION AND REPAIR

Introduction to Assembly
Safety for Assembly
Classification of Steel
Essentials of Heat Treatment of Steel
Band Saw Operation
Algebra Fundamentals

Applied and Engineering Sciences Geometry: Circles and Polygons Geometry: Lines and Angles Geometry: Triangles Math Fundamentals Math: Fractions and Decimals Statistics
Trigonometry: Sine Bar Applications
Trigonometry: Sine, Cosine, Tangent
Trigonometry: The Pythagorean
Theorem
Conflict Resolution for Different

Conflict Resolution Principles Essentials of Leadership Team Leadership Fabrication Process Fixture Body Construction Fixture Design Basics

Introduction to Workholding Locating Devices Supporting and Locating Principles

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



