WELDING

MANTEC

PROFESSIONAL DEVELOPMENT

LEARNING PLANS FOR MANUFACTURING JOB ROLES

Online Training from MANTEC 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 WELDING JOB ROLES

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

WELDING

WELDING FUNDAMENTALS

GMAW/FCAW/

SUBMERGED ARC/ GTAW/SMAW

WELDING

GMAW/FCAW/ SUBMERGED ARC WELDING



To begin your training program or for more information, call MANTEC at 717-843-5054 or email info@mantec.org

Online Training offers:

- Content developed by industry experts
- Accessible anytime, anywhere
- Self-paced

FABRICATION

AND REPAIR

GTAW

WELDING

SMAW

WELDING

- 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

WELDING

Welding Safety Essentials

Welding Fumes and Gases Safety

Introduction to Welding Processes

Math Fundamentals for Welding

Electrical Safety for Welding

Introduction to Welding

Welding Safety Essentials

Welding Fumes and Gases Safety

Math Fundamentals for Welding

Geometry Fundamentals for Welding

Electrical Safety for Welding

Material Tests for Welding

Welding Nonferrous Metals

Electrical Power for Arc Welding

Welding Ferrous Metals

Overview for Weld Types

Introduction to GMAW

Introduction to FCAW

PPF for Welding

Machining

PPE for Welding

WELDING

Basic Measurment Calibration Fundamentals Intro to OSHA Personal Protective Equipment Noise Reduction and Hearing Conservation Lockout/Tagout Procedures

WELDING FUNDAMENTALS

Units of Measurement **Blueprint Reading** Intro to OSHA Personal Protective Equipment Noise Reduction and Hearing Conservation Respiratory Safety

GMAW FCAW SUB ARC

Introduction to Metals Ferrous Metals Nonferrous Metals Approaches to Maintenance Total Productive Maintenance Troubleshooting Electrical Units Safety for Electrical Work

GTAW

Introduction to Physical Properties Introduction to Mechanical Properties Introduction to Metals Classification of Steel Ferrous Metals Nonferrous Metals Exotic Allovs Approaches to Maintenance

SMAW

Introduction to Physical Properties Introduction to Mechanical Properties Introduction to Metals Ferrous Metals Nonferrous Metals Approaches to Maintenance Total Productive Maintenance Troubleshooting

FABRICATION AND REPAIR

Introduction to Workholding Supporting and Locating Principles Locating Devices Fixture Body Construction Fixture Design Basics Math Fundamentals

SDS and Hazard Communication Walking and Working Surfaces Fire Safety and Prevention Flammable/Combustible Liquids Safety for Lifting Devices Powered Industrial Truck Safety Introduction to Physical Properties

Lockout/Tagout Procedures

Bloodborne Pathogens

Introduction to Circuits

Introduction to Magnetism

DC Circuit Components

NEC Overview

AC Fundamentals

DC Power Sources

Electrical Instruments

Electrical Print Reading

Frgonomics

SDS and Hazard Communication

Walking and Working Surfaces

Flammable/Combustible Liquids

Fire Safety and Prevention

Introduction to Mechanical Properties Introduction to Metals Ferrous Metals Nonferrous Metals Lean Manufacturing Overview ISO 9001:2015 Review 5S Overview

Hand and Power Tool Safety Safetv for Lifting Devices Powered Industrial Truck Safety Confine Spaces Environmental Safety Hazards Safety for Metal Cutting introduction to CAD and CAM for

AC Power Sources Conductor Selection Series Curcuit Calculations Parallel Circuit Calculations Battery Selection Safety for Machanical Work

Electrical Instruments **Flectrical Print Reading**

Electrical Print Reading DC Power Sources AC Power Sources Conductor Selection Series Curcuit Calculations Parallel Circuit Calculations Battery Selection Safety for Mechanical Work

Introduction to Welding Introduction to Welding Processes Material Tests for Welding Welding Ferrous Metals Welding Nonferrous Metals Overview of Weld Types Electrical Power for Arc Welding Introduction to SMAW

Wleding Nonferrous Metals

Overview of Weld Types

Fabrication Process Intro to Assembly Safety for Assembly Applied and Engineering Sciences Essentials of Leadership Conflict Resolution Principles

Conflict Resolution for Different Groups Team Leadership

Geometry Fundamentals for Welding Welding Ferrous Metals Welding Nonferrous Metals Overview of Weld Types Electrical Power for Arc Welding

Overview of Weld Defects Welding Symbols and Codes Thermal Cutting Overview Plasma Cutting Oxyfuel Cutting Applications Machine Guarding

Advanced GMAW Applications FCAW Applications Personal Effectiveness Essentials of Communication

Introduction to GTAW **GTAW** Applications Personal Effectiveness Essentials of Communication

SMAW Applications Personal Effectiveness Essentials of Communication

Math: Fractions and Decimals Algebra Fundamentals Geometry: Lines and Angles Geometry: Triangles Geometry: Circles and Polygons Trigonometry: The Phythagorean

Trigonometry: Sine, Cosine, Tangent Trigonometry: Sine Bar Applications Statistics Classification of Steel Essentials of Heat Treatment of Steel Band Saw Operation

TOOLINGU SMC

Theorem



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- Total Productive Maintenance Troubleshooting Electrical Units Safety for Electrical Work Introduction to Circuits Introduction to Magnetism DC Circuit Components NEC Overview
- Electrical Units Safety for Electrical Work Introduction to Circuits Introduction to Magnetism DC Circuit Components
- NFC Overview AC Fundamentals Electrical Instruments

- AC Fundamentals DC Power Sources
 - AC Power Sources Conductor Selection Series Circuit Calculations Parallel Circuit Calculations

Introduction to Welding Introduction to Welding Processes

GMAW Applications Battery Selection Safety for Mechanical Work Introduciton to Welding Introduction to Welding Processes Material Tests for Welding Welding Ferrous Metals