

### 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.

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.

# 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.

ENGINEERING FUNDAMENTALS ENGINEERING TECHNICIAN

### 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





## **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

Tor Sternens PLCs

Basics of Sternens PLCs

Sternens 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. —



