



PROFESSIONAL DEVELOPMENT

GLOBAL ROBOTICS MARKET EXPECTED TO REACH \$74 BILLION BY 2026*

To help meet the high demand for advanced manufacturing and robotics talent in our country, Tooling U-SME is introducing The Robotics in Manufacturing Fundamentals certification training program. It is designed to help prepare high school and college students, dislocated workers, under-employed individuals, veterans, at-risk youth and others to start a new career in the field of robotics.

The 22-class online training program from Tooling U-SME can be bundled with the industry recognized Robotics in Manufacturing Fundamentals credential. The training program prepares those currently looking to upskill or reskill into manufacturing careers before pursuing equipment-specific or career pathway-specific training in robotics. It can be used by manufacturers as an effective onboarding program for new employees.

SHORT-TERM, COMPREHENSIVE TRAINING

The online classes from Tooling U-SME cover topics agreed upon by manufacturing experts as being relevant for foundational robotics knowledge across a wide-range of industries. The information is presented in an engaging and interactive format for maximum effectiveness, and pre-and post-assessments measure a student's increased knowledge.

Classes are self-paced, typically taking 60 minutes to complete. The 22-class training program can be completed in just a few weeks (typically less than one month). They are conveniently accessible anytime, anywhere on desktops and laptops, and on tablets and phones with the Tooling U-SME app.

BUILD A COMPREHENSIVE FOUNDATION OF KNOWLEDGE

This program focuses on the fundamentals of robotics required as a starting point for any career pathway a candidate may pursue in the field of robotics:

- Introduction to Manufacturing
- Applied Mathematics
- Robotic Applications
- Robotic Systems and Components
- Robotic Programming Concepts

EARN A NATIONALLY RECOGNIZED CERTIFICATION

The SME Robotics in Manufacturing Fundamentals (RMF) credential, developed with the Robotics Education & Competition (REC) Foundation and FIRST®, is focused on the fundamentals of manufacturing robotics. The credential can help individuals begin a lifelong career in an industry where there is opportunity for advancement and good-paying jobs.

sme.org/rmf

* Global Robotics Market — Growth, Trends, Covid-19 Impact, and Forecasts (2022-2027), Mordor Intelligence.

Choose a starting point based on employee's experience or company goals for a quick-start training solution.

ROBOTICS IN MANUFACTURING FUNDAMENTALS (RMF)



ROBOTICS IN MANUFACTURING FUNDAMENTALS

Suggested order to complete the 22-online courses:

Manufacturing 101

Units of Measurement 112

Introduction to Robotics 201

Robotic Safety 211

Ergonomics 102

Bloodborne Pathogens 161

Fire and Safety Prevention 181

Forces of Machines 121

Cell Design and Pull Systems 161

Production System Design and Development 136

Robot Applications 215

Robot Components 221

End Effectors 225

Limit Switches and Proximity Sensors 231

Robot Power and Drive Systems 265

Introduction to Collaborative Robots 275

Introduction to Automation 291

Logic and Line Diagrams 312

Robot Sensors 315

Robot Control Systems 317

Visions Systems 320

Concepts and Robot Programming 341