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, underemployed 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

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