



# Developing Employees

 **TOOLINGU** |  **sme**

 **AMT** **Alliance for  
Manufacturing  
and Technology**

# Agenda

- Introduction
- The Case for Training and Development
- Recipe for Success
- Intro to Tooling U-SME
- Next Steps

## About AMT

- Private, not-for-profit established in 1988.
- Part of the Manufacturing Extension Partnership (MEP) Program.
- Experienced professionals who deliver business solutions to small to mid-sized Southern Tier Manufacturers.
  - Offer end-to-end services to help organizations ***Plan, Perform, Profit, & Grow.***
  - Connect to resources available at the local, regional, and national levels.
  - Provide economic impact to the community and region.

# Our Team



**Carol Miller**  
Executive Director



**Jeff DuBrava**  
Director of Client  
Services



**Tom Enderby**  
Principal Consultant



**Amanda Jackson**  
Principal Consultant



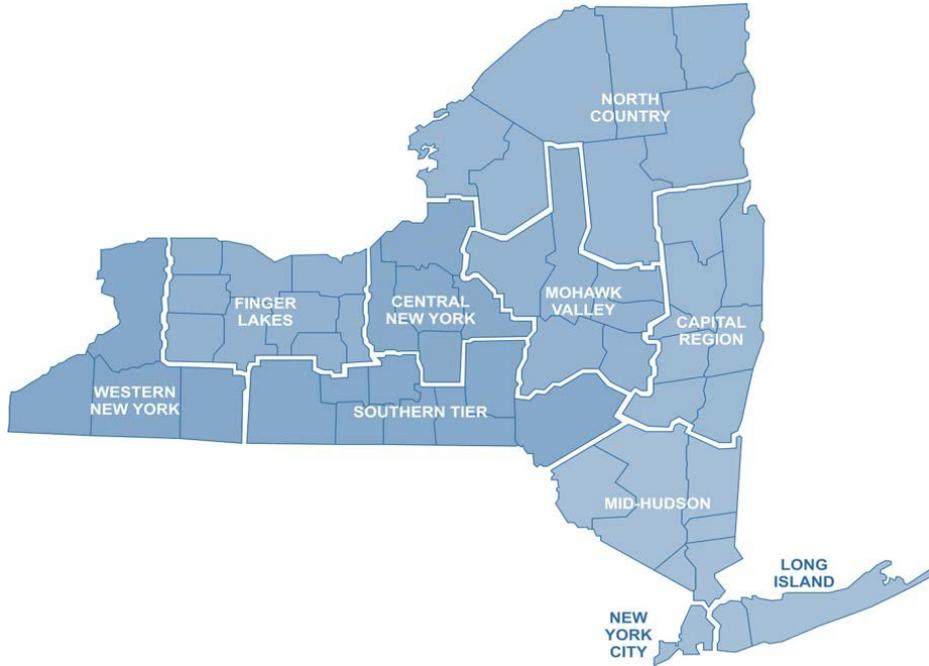
**Glenn Neu**  
Principal Consultant



**Wayne Smith**  
Principal Consultant



**Kathy Peacock**  
Accounting and Office  
Manager



# The NYMEP Program

- 10 Regional Centers
- One State-wide Center, FuzeHub



# National MEP Program Mission

*To enhance the productivity  
and technological performance  
of U.S. manufacturers*



# End-to-End Business Services

- Growth and Innovation
  - Strategic and Operational Planning
  - Sales & Marketing
  - Export Assistance
  - New Product Development (NPD)
  - Entrepreneur Assistance
- People Development
  - Leadership Principles & Coaching
  - Supervisor Training – Training Within Industry
  - General Workforce
- Operational Excellence
  - Quality and Environmental Services: ISO9001, AS9100, ISO14000
  - Lean Enterprise and Six Sigma Programs
  - Information Technology
- And More...
  - Cybersecurity Assessments and Remediation
  - Safety Programs
  - R&D Tax Credit
  - Shared Savings
  - Grant Assistance

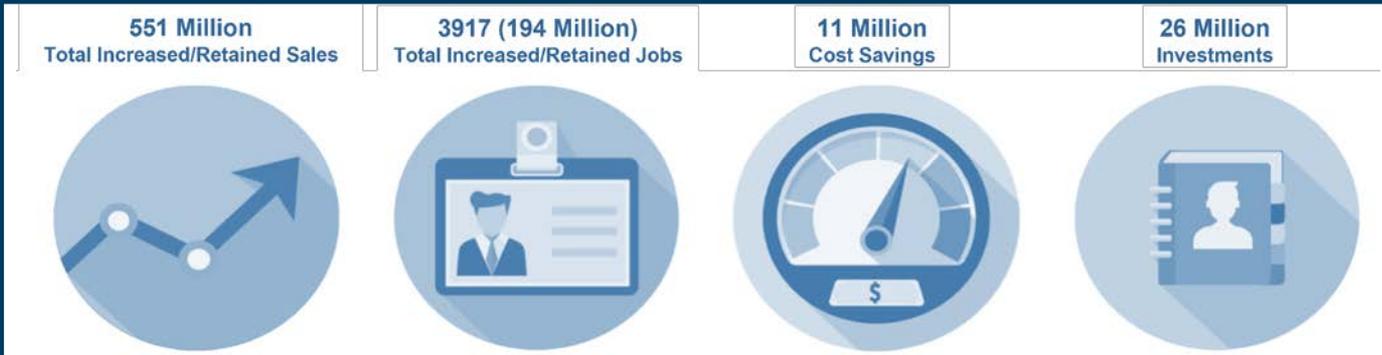


## PARTNERSHIPS

- Work closely with other economic development organizations, universities, community colleges, professional associations and state agencies.
- Connect Companies with Grant Opportunities.
  - Vary based on location and type of project.
  - Grants available through many organizations.

## OUR FIVE-YEAR REPORT CARD

Our success is evaluated by the impact of our work with clients in the Southern Tier, which is determined by the US Department of Commerce through an independent 3rd-party survey process.



# The Reasons Why the AMT Approach Makes Sense

- ▶ **500,000 open manufacturing** jobs in the US, expected to multiply 5 times by 2028. 3000 open manufacturing jobs in NY Southern Tier.
- ▶ **70% of employees** would be somewhat likely to leave their current job to work for an organization known for investing in employee development and learning.
- ▶ **34% of employees** who left their previous job were motivated to do so by more career development opportunities.
- ▶ **86% of millennials** would be kept from leaving their current position if training and development were offered by their employer.
- ▶ **Over 70% of high-retention-risk employees** will leave their company in order to advance their career.
- ▶ Retention rates **rise 30-50% for companies** with strong learning cultures.
- ▶ **ISO 9001 7.2 Competency** - Ensure competency on basis of education, training, or experience.

# Most “in-demand” Occupations in Manufacturing:

Dec 1, 2020 - Nov 30, 2021

## 8 County Area:

- Delaware
- Broome
- Chenango
- Tioga
- Tompkins
- Chemung
- Steuben
- Schuyler

\* Actual # of postings are likely higher due to multiple openings for the same posting

Occupation	# Job Postings*
Production Worker	174
Manufacturing Machine Operator	168
Mechanical Engineer	161
Software Developer / Engineer	127
Production Supervisor	99
Manufacturing Engineer	96
Laborer / Warehouse Worker	92
Quality Inspector / Technician	89
Maintenance Technician	88
Chemical/ Process Engineer	86
Manufacturing / Production Technician	70
Electrical Engineer	64
Forklift / Pallet Jack Operator	57



data source

# Road to Successful Training Program

- ▶ Needs assessment
  - The organization's goals.
  - Gaps between current and desired training.
- ▶ Design and develop customized program
  - Self-directed and blended learning
  - Stakeholder input
- ▶ Implementation
  - Pilot
  - Revisions (if needed)
- ▶ Evaluation
  - Determine whether a program achieved its objectives.
  - Cost-benefit ratio of training (ROI)



### Events | [sme.org/events](http://sme.org/events)

Through its events, SME bring the best prospects for your business to you allowing you to spend time doing what matters: face-to-face interaction with the people who can impact your bottom line.



### Membership | [sme.org/benefits](http://sme.org/benefits)

SME members are successful manufacturing practitioners and business owners with experience across a variety of fields and from leading manufacturing companies and institutions.



### Media | [advancedmanufacturing.org](http://advancedmanufacturing.org)

SME's Advanced Manufacturing Media group is a leading source for news and in-depth technical information about advanced manufacturing in North America.



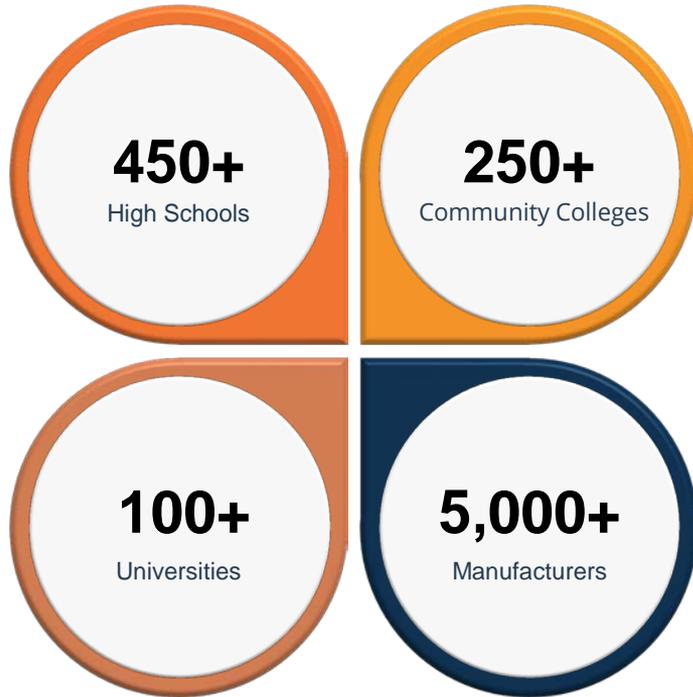
### Education Foundation | [smeef.org](http://smeef.org)

Since 1998, the SME Education Foundation has invested more than \$8 million in youth programs, helping over 60,000 students explore career opportunities in science, technology, engineering and mathematics (STEM) education.



# ORGANIZATIONS THAT USE TOOLING U-SME:

We believe it is important for educators and employers to collaborate on building the next-generation workforce, and we help connect them.



**MEP • MANUFACTURING  
EXTENSION PARTNERSHIP**

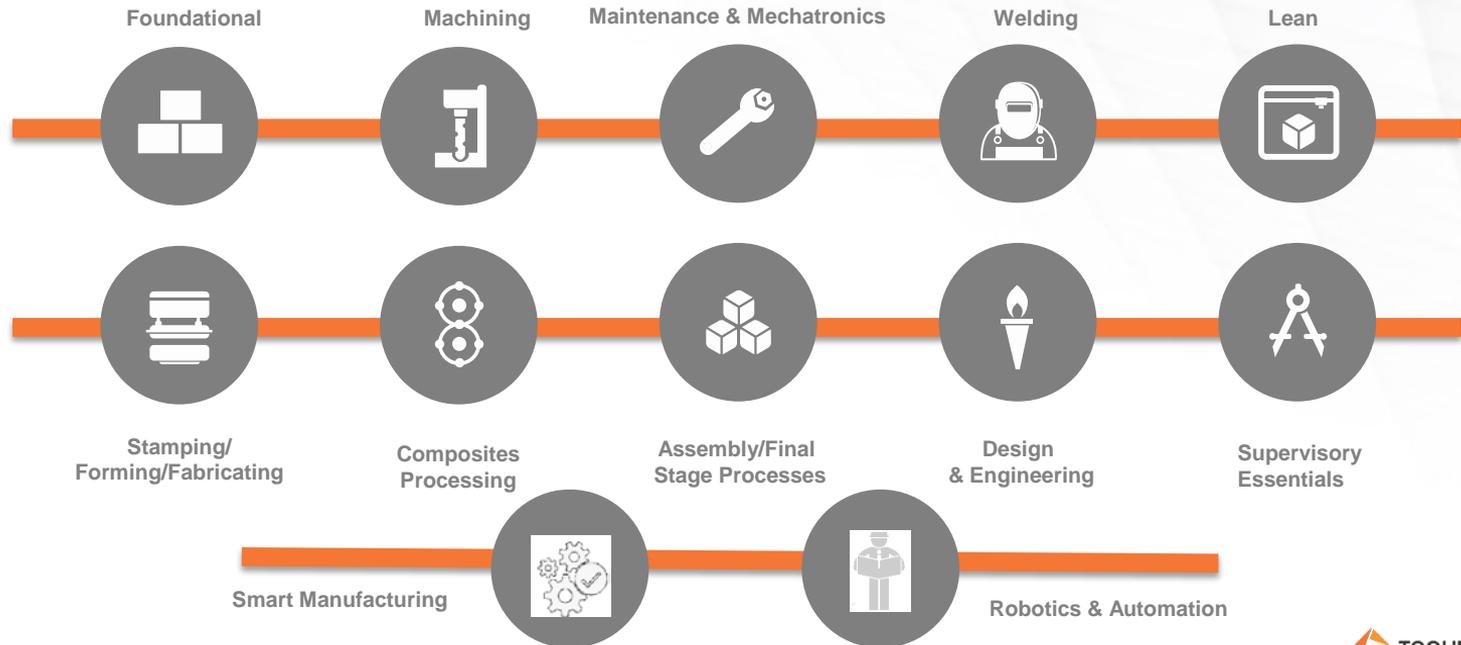
**NIST**  
NATIONAL INSTITUTE OF  
STANDARDS AND TECHNOLOGY  
U.S. DEPARTMENT OF COMMERCE

**AMT** Alliance for  
Manufacturing  
and Technology

More than half of the Fortune 500  
Manufacturers in the United States

# TARGETED CONTENT | The Expertise You Need, Delivered in a Format You Want

More than 550+ unique online classes provide access to a broad, yet deep, catalog of manufacturing training topics. Every class has been reviewed and validated by industry experts. <https://www.toolingu.com/catalog>



## Commitment to Online Course Development:

- Team of 25+ full-time designers & developers at Tooling U-SME
- Updated versions of current courses (1.0 to 2.0)
- 2 Department of Defense Grants for Curriculum Development (over 125 new courses):

- Additive Manufacturing
- CyberSecurity for Manufacturing
- Artificial Intelligence
- Industrial Internet of Things (IIoT)
- Robotics & Automation
- Big Data
- Augmented/Virtual Reality



## The User Experience:

- 1-hour to complete each class
- Pre-Assessment
- Interactive Learning Experience
  - Audio
  - Video
  - Text
  - Simulation
  - Quizzes
- Final Exam

## Administrative Options:

- Administrative Access
- Permissions & Controls
- Individual & Group Reports
- Custom Programs
- Certificates of Completion



# HOW CAN MANUFACTURERS BENEFIT FROM ONLINE LEARNING?



Onboard New Employees



Custom Online Learning Packages



Blended/Hybrid Delivery



Compliance Training (i.e. OSHA)



Apprenticeships



Industry Certifications



# ALIGNMENT TO CERTIFICATION

Tooling U-SME courses align to several industry recognized certifications



**National Institute for Metalworking Skills®**



**American Welding Society**



**MANUFACTURING  
SKILL STANDARDS  
COUNCIL**



**SIEMENS**



# Certified Manufacturing Associate (CMfgA): 25 online courses



- Introduction to Additive Manufacturing 111
- Introduction to CNC Machines 201
- Introduction to Assembly 101
- Safety for Assembly 211
- Tools for Threaded Fasteners 235
- Basic Measurement 101
- Basics of Tolerance 121
- Blueprint Reading 131
- 5S Overview 151
- Troubleshooting 181
- Quality Overview 111
- Introduction to Robotics 201
- Robot Safety 211
- Bloodborne Pathogens 161
- Intro to OSHA 101
- Ergonomics 102
- Personal Protective Equipment 111
- Lockout/Tagout Procedures 141
- SDS and Hazard Communication 151
- Hand and Power Tool Safety 201
- Fire Safety and Prevention 181
- Math Fundamentals 101
- Math: Fractions and Decimals 111
- Units of Measurement 112
- Lean Manufacturing Overview 101

## **Certification Exam:**

- 75 questions (multiple choice)
- 2-hour time limit
- Pass = 70%
- Can be virtually proctored



# WHAT MAKES TOOLING U-SME DIFFERENT?



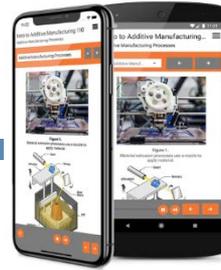
## Industry Driven Content

All courses designed and developed with guidance from Industry Subject Matter Experts.



## Learning Management System (LMS)

LMS can manage and track learning initiatives



## Mobile Access

Courses can be taken on tablet or smartphone (iPhone & Android) by downloading the Tooling U-SME app



## Client Success Management

Supporting clients throughout the entire training implementation

# Individual Subscriptions

Type of Subscription	Length
10-pack	365-days
25-pack	365-days
All-Access	90-days
All-Access	180-days
All-Access	365-days



## Tooling U-SME Subscriptions

- Individual Start/End date
- Access to Tooling U-SME's LMS



## AMT Customized Training Program Elements:

- Instructor-led
- Program Design
- Monitoring and Support

Grants are available to support training programs

# Annual Site License (all access)

# of Users	Length
50-99	365-days
100-499	365-days
500-999	365-days
1000+	365-days



## Tooling U-SME Subscriptions

- Shared Start/End date for all Users
- Access to Tooling U-SME's LMS
- 3rd Party LMS Integration Option
- Minimum 50 Users



## AMT Customized Training Program Elements:

- Instructor-led
- Program Design
- Monitoring and Support

Grants are available to support training programs



# Next Steps?

- Contact Jeff DuBrava  
jdubrava@amt-mep.org
- **Try a few online courses**
- **2-Week Trial Account (no cost)**
- Provide information to AMT
  - Name (First, Last)
  - Title
  - Company
  - email address
  - areas of interest



## AMT Featured Programs:

- Industry 4.0
- Industrial Safety & OSHA 10
- Leadership
- Mechatronics/Maintenance
- Certified Manufacturing Associate (CMfgA)

## AMT Technical Programs:

- Composites
- Forming, Fabricating, Stamping
- Machining
- Plastics Processing
- Welding

<https://www.amt-mep.org/tooling-u-sme/>



# Questions.....

Jeff DuBrava  
Director Client Services  
[jdubrava@amt-mep.org](mailto:jdubrava@amt-mep.org)  
(607) 422-1048

