



MSSC Launches NEW CPT 4.0 Program

CPT 4.0 is a **nationally portable, industry-led** training and certification program that prepares entry-level to front-line supervisors for careers in advanced manufacturing. This online program delivers **foundational**, core competencies and in-demand skills today's employers need for over 6 million frontline production jobs.

Why Industry 4.0?

These 4.0 technologies represent the **Fourth Industrial Revolution** which focuses on deepening the impact of our digital technologies by making our machines more self-sufficient, able to “talk” to one another, and to consider massive amounts of data in ways that humans simply can't—all in the name of efficiency and growth.

For manufacturers, Industry 4.0 technologies help to bridge the gap between what were once separate processes to a more transparent, visible view across the entire organization, with plenty of actionable insights.

Industry 4.0 has widespread repercussions. It's used to leverage operational efficiency, refine demand forecasting, break down data silos, engage in predictive maintenance, provides workers boosts to safety and virtual training, and more. Industry 4.0 spans manufacturing from planning to delivery, with solutions for deep analytics, shop floor data sensors, smart warehouses, simulated changes, plus product and asset tracking.

Why 4.0 CPT Production Technicians?

- Technicians will be ready to build 4.0 skills
- Employers will have a workforce ready to adapt to new 4.0 technologies, be better able to compete in the global market, have a workforce ready to bring manufacturing back to America, and to make products critical to our national security

MSSC CPT 4.0 Introduces Nine 4.0 Industrial Era Technologies:

- 5G
- Additive (3D)
- Augmented Reality
- Artificial Intelligence (AI)
- Data Analytics
- Nanomanufacturing
- Autonomous Robots
- Industrial Internet of Things (IIOT)
- Advanced Material

The Manufacturing Skill Standards Council®: MANUFACTURING THE FUTURE

The Manufacturing Skill Standards Council, a 501(c)3 non-profit, is an industry-led training, assessment, and certification system focused on the core skills and knowledge needed by the nation's front-line production and material handling workers. MSSC, the only ISO Standard 17024 certified program covering entry-level to basic front line supervisor skills, is nationally recognized, federally endorsed, and has been vetted by the U.S. Departments of Labor, Education, Justice, VA, and Jobs Corps.



Certified Production Technician (CPT+)

Hands-on Training & Certification



With Skill Boss



Skill Boss provides the tool you need to teach or evaluate an individual's skills as they install, adjust, & troubleshoot components on this fully functional mechatronics system, applicable to both discrete parts & process manufacturing.

Certificants who earn CPT 4.0 & CPT+ credentials can earn up to 8 certificates and 2 full certifications.

Skill Areas

MSSC's CPT 4.0 & CPT+ certifications cover all 4 modules in the following skill areas:

Safety

- Introduction to Advanced Manufacturing
- Industry 4.0 and IIoT
- Safety Responsibilities
- Practicing Safety in the Workplace
- Types of PPE
- Hazardous Materials Standard
- Hazardous Material Handling and Storage
- Machine Safety
- Equipment Safety
- Material Handling and Robot Safety

Manufacturing Process & Production

- Principles of Manufacturing Automation
- Industry 4.0 Technologies
- Advanced Manufacturing Materials
- Advanced Manufacturing Processes
- Mechanical Power
- Basic Mechanical Elements
- Power Efficiency
- Hand Tools
- Band Saw Operation
- Introduction to Drill Press

Quality Practices & Measurement

- Introduction to Quality
- Dimensional Measurement
- Measurement Conversion
- Introduction to Print Quality
- Multiview Drawings
- Blueprint Dimensions and Notes
- Manufacturing Drawings and Scales
- Welding Symbols
- Tolerancing
- Caliper Measurement

Maintenance Awareness

- Total Productive Maintenance (TPM)
- Mechanical Power Transmission
- Gear Drives
- Belt Drives
- Chain Drives
- Oil Lubrication
- Grease Lubrication
- Introduction to Fluid Power
- Pneumatic Power
- Basic Cylinder Circuits

Green Production

Certification in the use of equipment, technologies, and processes that will improve the environmental performance of manufacturing companies.

MSSC, NAM, & Student Clearinghouse Conduct CPT Certificant Study

MSSC and the Manufacturing Institute of the National Association of Manufacturers (NAM) collaborated with the National Student Clearinghouse (NSC) in a data sharing initiative and identified significant wage growth for CPT certificants.

MSSC certificants who earn the Full CPT certificate can earn \$50,000/yr. in 3-5 years.



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