

CPT 4.0MSSC™

CERTIFIED PRODUCTION TECHNICIAN 4.0

CRITICAL PRODUCTION FUNCTIONS COVERED BY MSSC COURSES AND ASSESSMENTS:

The Manufacturing Skill Standards Council (MSSC) credentialing system leading to a CPT 4.0 covers the four critical production functions, as defined by MSSC's industry-led, nationally validated skills standards, common to all sectors of manufacturing: Safety, Quality Practices & Measurement, Manufacturing Processes & Production, and Maintenance Awareness. Each area is addressed with a separate assessment. MSSC training and assessments are organized around those four modules. An individual can earn a "Certificate" if they pass one or more assessments. However, they must pass all four assessments to earn the full "CPT 4.0" certification. MSSC strongly recommends that individuals be at the 9th grade level of math and 10th grade level of English before attempting MSSC courses and assessments. The four critical functions and their related key activities are described below:

SAFETY

1. Work in a Safe and Productive Manufacturing Workplace
2. Perform safety and environmental inspections
3. Perform emergency drills and participate in emergency teams
4. Identify unsafe conditions and take corrective action
5. Participate in safety training
6. Participate in equipment safety training
7. Suggest processes and procedures that support safety of work environment
8. Fulfill safety and health requirements for maintenance, installation, and repair
9. Monitor safe equipment and operator performance
10. Utilize effective, safety-enhancing workplace practices

MANUFACTURING PROCESSES & PRODUCTION

1. Identify customer needs
2. Production equipment operation
3. Determine resources available for the production process
4. Set up and verify equipment for the production process
5. Set team production goals
6. Make job assignments
7. Coordinate workflow with team members and other work groups
8. Communicate production and material requirements and product specifications
9. Perform, and monitor the process to make the product
10. Document product and process compliance with customer requirements
11. Prepare final product for shipping or distribution

QUALITY PRACTICES & MEASUREMENT

1. Participate in periodic or statistically based internal quality audit activities
2. Check and document calibration of gauges and other data collection equipment
3. Suggest continuous improvements
4. Inspect materials and product/process at all stages to ensure they meet specifications
5. Document the results of quality tests
6. Communicate quality problems.
7. Take corrective actions to restore or maintain quality
8. Record process outcomes and trends
9. Identify fundamentals of blueprint reading
10. Use common measurement systems and precision measurement tools

MAINTENANCE AWARENESS

1. Perform preventive maintenance and routine repair
2. Monitor indicators to ensure correct operations
3. Perform all housekeeping to maintain production schedule
4. Recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with:
 - Electrical systems
 - Pneumatic systems
 - Hydraulic systems
 - Machine automation systems
 - Lubrication processes
 - Bearings and couplings
 - Belts and chain drives

NOTE: MSSC assesses core understanding of the key work activities and core technical knowledge and skills needed in high-performance manufacturing, as defined by MSSC Production Skill Standards. Given online, MSSC Assessments also help measure basic computer, problem-solving and analytical skills and one's ability to apply knowledge to specific situations identified in the assessments. There are no experiential or hands-on requirements for MSSC certification as it is expected that individual employers will determine those requirements based upon their own specific needs. MSSC does not require that individuals take MSSC courses prior to testing.