COURSE TITLE: Certified Production Technician

DESCRIPTION: The Production Technician course provides the student the foundational, portable production knowledge-set applicable to entry-level production technician jobs in the manufacturing industry and prepares the student to sit for the four Manufacturing Skills Standards Council [MSSC] Production Technician certification assessments; Safety Awareness, Production & Processes, Maintenance Awareness, and Quality Assurance. Additionally, this course covers Employability Skills as a non-assessed portion of the training.

LENGTH: 144 Hours

CERTIFICATION ALIGNMENT: Manufacturing Skills Standards Council (MSSC) Certified Production Technician (CPT); Occupational Safety and Health Administration – 30 Hour Safety Training (OSHA 30)

COURSE OBJECTIVE: Understand the foundational technical information with the knowledge skills needed to prepare them for an advanced, high-performance manufacturing environment.

CONTENT TOPICS:

Unit 1: Workplace Essentials - Provides training on employability skills needed in the manufacturing community to sustain the day-to-day success of their organizations.

- Module 1: Human Behavior and Ethics
- Module 2: Communications Skills
- Module 3: Stress and Time Management
- Module 4: Team Building and Conflict Resolution
- Module 5: Counseling and Conflict Resolution
- Module 6: Intermediate Math

Unit 2: Safety Awareness - Provides baseline knowledge and skills needed to maintain a safe and productive work environment and ensure the safe use of equipment in the workplace.

- Module 1: OSHA Standards
- Module 2: Hazard Communications
- Module 3: Personal Protective Equipment
- Module 4: Fire Safety
- Module 5: Electrical and Tool Safety
- Module 6: Lockout/Tagout Safety
- Module 7: Ergonomics
- Module 8: Bloodborne Pathogens

Unit 3: Production and Processes - Develops existing knowledge and skills needed for the production of products to meet customer needs while ensuring the manufacturing process meets business requirements.

- Module 1: Introduction to Manufacturing
- Module 2: The Production Process
- Module 3: Manufacturing Essentials
- Module 4: Lean and Six Sigma Basics
- Module 5: Business Basics
- Module 6: Supply Chain

Unit 4: Maintenance Awareness - Provides the core knowledge of preventive maintenance and enhances existing skills in the identification and performance of equipment maintenance used in the production process.

- Module 1: Root Cause Analysis
- Module 2: Industrial Print Reading
- Module 3: Electrical Basics
- Module 4: Fluid Power Basics
- Module 5: Machine Basics
- Module 6: Preventive Maintenance
- Module 7: Total Productive Maintenance
**Unit 5: Quality Assurance** – Enhances existing knowledge and skills needed to maintain quality and implement continuous improvement processes, and ensure that product and process variances meet quality standards.

Module 1: Introduction to Quality Management  
Module 2: Introduction to Measuring Process Quality  
Module 3: Quality Improvement Systems  
Module 4: Problem Solving

**DELIVERY METHOD** (Online synchronous, Online Asynchronous, Face-to-Face)

**ARTICULATION**: ETM 1010C Mechanical Measurement and Instrumentation, ETI 1420C Manufacturing Processes and Materials, ETI 1110C Introduction to Quality, ETI 1701C Industrial Safety, ETI 1402C Intro. To Advanced Manufacturing

**CREDENTIALS TO SUPPORT SOC CODE(S):**  
49-1011, 49-9071, 51-1011

49-1011.00 - **First-Line Supervisors of Mechanics, Installers, and Repairers**  
Directly supervise and coordinate the activities of mechanics, installers, and repairers.

*Sample of reported job titles:* Crew Leader, Electrical Foreman, Facilities Manager, Facility Maintenance Supervisor, Maintenance Foreman, Maintenance Manager, Maintenance Planner, Maintenance Supervisor, Production Crew Supervisor, Superintendent

49-9071.00 - **Maintenance and Repair Workers, General**  
Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.

*Sample of reported job titles:* Building Maintenance Mechanic, Building Mechanic, Equipment Engineering Technician, Facilities Manager, Maintenance Engineer, Maintenance Man, Maintenance Mechanic, Maintenance Supervisor, Maintenance Technician, Maintenance Worker

51-1011.00 - **First-Line Supervisors of Production and Operating Workers**  
Directly supervise and coordinate the activities of production and operating workers, inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant / system operators.

*Sample of reported job titles:* Assembly Supervisor, Department Manager, Manufacturing Supervisor, Molding Supervisor, Plant Manager, Production Manager, Production Supervisor, Shift Supervisor, Supervisor, Team Leader

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