COURSE TITLE: 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: 80 or 120 hours

CERTIFICATION ALIGNMENT: Manufacturing Skills Standards Council [MSSC] Certified Production Technician [CPT]

COURSE OBJECTIVES: Upon the successful completion of this course, students will be able to:

1. 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

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existing skills in the identification and performance of equipment maintenance used in the production process.

Module 1: Troubleshooting/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:** EET 1084C Introduction to Electronics, ETM 1010C Mechanical Measurement and Instrumentation, ETI 1420 Manufacturing Processes and Materials, ETI 1110 Introduction to Quality, and ETI 1701 Industrial Safety.

**SOC Code(s):** 491011, 499071, 511011

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