MANUFACTURING AND PRODUCTION TECHNOLOGY (MPT)

MPT 110 # - Automated Production Concepts I **Units: 3**
This course introduces students to the concepts of production systems management and control. This course stresses materials resource planning and basic production line controls, to include robotic, conveyer, machine tool, and quality integration.Completion of this course (total 3 credits), satisfies 5 hours of instruction toward completing the embedded human relations curriculum requirements, in accordance with Embedded Curriculum Guidelines Option A.Completion of this course (total 3 credits), satisfies 5 hours of instruction toward completing the embedded math curriculum requirements, in accordance with Embedded Curriculum Guidelines Option A.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: All Semesters

MPT 120 # - Automated Production Concepts II **Units: 3**
This course introduces students to the concepts of production systems management and control. This course stresses materials resource planning and basic production line controls, to include robotic, conveyor, machine tool, and quality integration. This course satisfies 12 hours of instruction toward completing the embedded human relations curriculum requirements and also satisfies 15 hours of instruction toward completing the embedded math curriculum requirements, in accordance with Embedded Curriculum Guidelines Option A.
Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: MPT 110 or instructor approval.
Term Offered: All Semesters

MPT 130 # - Automated Production Concepts III **Units: 3**
This course is a continuation of MPT 110 and MPT 120 Automated Production Concepts I & II and serves as the capstone course for the AAS Manufacturing Technology, Production Systems Emphasis. Students are required to combine concepts from all core courses to complete a comprehensive complex production system evolution.
Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: MPT 120.
Term Offered: All Semesters

MPT 135 # - Material Handling **Units: 2**
This course provides an overview of the functions and operation of various types of common powered and non-powered industrial material handling equipment. OSHA regulations and standards governing the safe use of powered industrial trucks are covered. The student must complete all content for the following four areas in order to meet degree or certificate requirements. 1. Basic Material Handling Equipment(.5 Credits) 2. Safe and Effective Equipment Operation (.5 Credits) 3. Warehouse Procedures (.5 Credits) 4. Automated Warehouse Concepts (.5 Credits) Completion of all four areas (total of 2 credits), satisfies 6 hours of instruction toward completing the embedded human relations curriculum requirements, in accordance with Embedded Curriculum Guidelines Option A.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: All Semesters

MPT 140 # - Quality Control **Units: 3**
This course introduces students to the fundamental principles and practices of industrial quality control. Total Quality Management (TQM), Acceptance Sampling Systems are discussed in depth. This course satisfies 24 hours of instruction toward completing the embedded human relations curriculum requirements and also satisfies 20 hours of instruction toward completing the embedded math curriculum requirements, in accordance with Embedded Curriculum Guidelines Option A.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: All Semesters

MPT 150 # - Solid Modeling for Manufacturing Technicians **Units: 3**
This course is an introduction to Solid Works software for utilization within a manufacturing environment. The course covers creation, retrieval and modification of 3-D and layout drawings using basic Solid Works commands. Includes skills needed to create parametric models of parts and assemblies; generate dimensioned layouts; and Bill of Materials of those parts and assemblies.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: All Semesters

MPT 160 # - Mechanical Drive Systems I **Units: 3**
This course covers the basic and intermediate principles and practices of mechanical drive systems used in industry. Students will learn proper installation, troubleshooting, repair and maintenance techniques; of Mechanical Drive Systems such as Belt, Chain, and Gear Drives.
Transferability: May not transfer towards an NSHE bachelor's degree

MPT 165 # - Customer Service for Technicians **Units: 1-3**
This course is focused on effective communication and customer service skills for a technical environment. It will focus on common oral and written communication opportunities where attaining mutual understanding and agreement between product/service providers and customers is essential for smooth business operation and customer satisfaction.
Transferability: May not transfer towards an NSHE bachelor's degree

MPT 198 # - Special Topics in Manufacturing and Production Technologies **Units: 0.5-4**
This course is designed to give students a basic understanding of current theories in manufacturing and production technologies. As local manufacturers begin to utilize advanced technologies in their processes, this course will provide a hands on approach to learning the technology in these areas necessary for students to succeed in the new economy.
Transferability: May not transfer towards an NSHE bachelor's degree