

Industrial Operations Technology

ENTRY LEVEL TRAINING PROGRAM

Industrial Operations Technician Program

The MidAmerica Industrial Park, and partnering companies, collaborate with area school districts to offer and deliver the “Industrial Operations Technology” program of study. This program is designed to prepare high school seniors for entry-level production positions in industrial environments upon graduation. This industry designed and developed program focuses on five critical areas within manufacturing/industrial environments. The program will be enhanced with experiences that expose students to local companies and industry professionals to bring real-world examples and insight to the learning process. Essential Employability skills will also be addressed during the program to instill the most sought-after skill sets by employers and to prepare participants for the job-seeking and interview process.

Curriculum Overview

The outline below demonstrates program curricula which develops base line skill sets as well as the opportunity to explore areas of interest for further education.

Workplace Safety: the safety portion of the program focuses on common safety related topics that cut across various industry sectors and lays the foundation of a qualified worker. In this module students will have the opportunity to add additional certifications including the following:

- Fire Extinguisher Training
- Hazardous Materials Training
- Hazard Identification
- OSHA 10 hours for General Industry
- Personal Protective Equipment
- CPR / First Aid
- Confined Space Training
- Lockout/Tagout
- Powered Industrial Trucks

Quality Practices: the quality portion of this program introduces the practices used for controlling and improving quality in industrial settings while exploring ways that manufacturers use data and analysis to improve quality. Topics in this module include the following:

- Basic measurements
- Geometric dimensioning and tolerance
- Quality control and management systems
- Process improvement methods
- Preventive and corrective actions

Industrial Operations Technology

ENTRY LEVEL TRAINING PROGRAM

Production Processes: the production processes portion of the program provides the basics of how manufacturing transforms materials into products. Students will learn about the varying types of production, materials, and processes used in manufacturing. Topics in this module include the following:

- Production materials
- Casting, molding and forming
- Machining and fabrication
- Conditioning and finishing
- Assembly production
- Production planning and work flow

Maintenance Awareness: this module will provide participants with an understanding of their role in maintaining smooth production operations. Participants will build the skills and knowledge necessary to respond appropriately to situation that may hinder production. Topics in this module include the following:

- Routine, preventive, and predictive maintenance
- Tool related safety practices and application
- Computer applications in manufacturing
- Ergonomics and equipment procedures

Essential Employability Skills: this module will focus on eight critical areas deemed essential by employers, regardless of industry sector. It will provide the opportunity to develop the foundational characteristics desired from all employees. Topics in this module include the following:

- Communication and listening
- Collaboration and teamwork
- Self-management and initiative
- Problem solving and adaptability

Benefits of Program Completion

The benefits of this program are numerous and can be the launching point to a successful career with many opportunities for advancement. For those in the IOT program the benefits include the following:

- Completers will possess identifiable certifications proving skill attainment
- Reduced training time and expense for participating employers
- Participants of the program will have high levels of retention
- Evaluation of potential employees during training phase
- Guaranteed interviews and preferential hiring status.

Industrial Operations Technology

ENTRY LEVEL TRAINING PROGRAM

Company Commitments: Company involvement is critical to the success of the program to ensure quality and sustainability. Companies will have the opportunity to engage in several ways to include the following:

- Provide continuous advisement for program development and improvement
- Provide technical professionals for classroom instruction and speaking opportunities
- Provide resources as appropriate for program development, execution and sustainment
- Provide employment for program participants

Program Structure: Program will be structured in a way that makes it convenient, affordable and flexible and in a way, that provides opportunity for continued education and development. The program will be offered at each participating school districts campus. Class meeting dates and times are coordinated with each school.

Convenience: The program is be designed in a hybrid format that takes advantage of online learning blended with face-to-face instruction. This structure allows for the program to move at a pace that works for the individual student and provides opportunity for reinforcement of learning objectives.

Online curriculum: This program takes advantage of an online curriculum created by Tooling-U. This curriculum is specifically designed to align with the OIT program and is accessible anywhere at any time. In addition, students have full access to Tooling-U curriculum data base for one year to allow for continued learning opportunities.

Face-to-Face: Traditional class structures are used to reinforce learning and to conduct assessments and applied learning modules. These sessions will be conducted by a qualified professional from industry who can provide real world application and feedback.