Syllabus

ADM 100 Introduction to Safety and Careers in Advanced Manufacturing

General Information

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Course Prefix ADM

Course Number 100

Course Title Introduction to Safety and Careers in Advanced Manufacturing

Course Information

Catalog Description This course is designed for anyone interested in gaining employment in an in-demand occupation in the advanced manufacturing field. Candidates include: incumbent workers, High School seniors, non-traditional learners seeking a career change or to enter this field, and apprentices seeking related instruction for their DOL Occupation. The content of this course prepares students to safely step into a production based workplace and enter into additional coursework for advanced manufacturing. Learners will become familiar with the type of Manufacturing companies, the characteristics of Advanced Manufacturing and types of productions facilities. They will learn how to work in safe and productive manner, perform safety and environmental inspections, perform emergency drills and participate in emergency teams, identify unsafe conditions and take corrective action, provide safety orientation for all employees, train personnel to use equipment safely, suggest processes and procedures that support safety of work environment, fulfill safety and health requirements for maintenance, installation and repair, monitor safe equipment and operator performance, and utilize effective safety-enhancing workplace practices. This hybrid course will include online and hands on portions to provide real world experience.

Credit Hours 3

Lecture Contact Hours 3

Lab Contact Hours 2

Other Contact Hours 0

Grading Scheme Letter

Prerequisites

None

Co-requisites

None

First Year Experience/Capstone Designation

This course DOES NOT satisfy the outcomes applicable for status as a FYE or Capstone.

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed categories
None

FLCC Values

Institutional Learning Outcomes Addressed by the Course
Vitality, Inquiry, Perseverance, and Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Articulate Safety in Manufacturing applied to functional areas of manufacturing, different production layouts, and employee positions and their role(s) within manufacturing.

2. Execute safety skills and safety plans in manufacturing environment pertaining personal protective equipment, fire and electrical, work area, hazardous material, tools/machines, and material handling.

3. Practice written and verbal communication skills (e.g. listening, decision-making, idea generation, customer service, conflict resolution, and workplace behavior in order to prepare, deliver, and execute effective training and team building).

4. Identify processes and procedures that support safety of the work environment to fulfill safety and health requirements for maintenance, installation, and repair.

Outline of Topics Covered

- **Introduction to Advanced Manufacturing: the History and influence of manufacturing on society, types of manufactured products, and roles of workers in manufacturing**

- **Communications: Effective verbal and written communication, giving and receiving feedback, listening**
- **Production Teams: Frontline team building, decision making, idea generation, concurrent engineering, customer service**
- **Training and Leadership: prepare and deliver, evaluate training results, lead teams, conflict resolution**
- **Safety Organization: Safety agencies, safety teams, emergency procedures, job safety analysis, workplace behavior, inspections**
- **Personal Protective Equipment: PPE types, application and use for ears, eyes, body, face, hand, food and respiration**
- **Fire and Electrical Safety: Fire and electrical safety, use of fire extinguishers, lockout/tagout, basic first aid, and accident reporting**
- **Work Area Safety: Housekeeping, work area permits, ergonomics, platform and man lift**
- **Hazardous Material Safety: Hazardous materials, Hazmat, labeling systems, SDS, handling and storage**
- **Tool and Machine Safety: Machine operation safety, hand and cutting tools, compressed air, portable power tools, guards, pneumatic**
- **Material Handling Safety: Lift trucks, cranes, rigging, equipment movement, hoists, slings, pry trucks**

Program Affiliation

This course is not required as a core course in any programs.