

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Industrial Safety & Quality Practices

Course Abbreviation and Number: MCT 1310

Credit Hours: 2

Course Type: Lecture

Course Description: Students will learn the safety habits and quality control practices necessary within typical industrial settings. This course will cover knowledge needed to successfully complete a national certification test on safety and quality offered through the Manufacturing Skills Standards Council (MSSC).

No requisites.

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Identify key components of industrial safety programs including communication tools, hazard assessments, proper application of personal protective equipment (PPE), reporting, corrective action, procedures, and training among others.
2. Recall terminology and other key aspects of quality assessment and quality management practices in industry including audits, calibration, continuous improvement, inspection tool selection and usage, testing, documentation, corrective action, root cause assessment, statistical process controls, sampling, blueprint reading, and measurement systems among others.

Topics Covered:

Safety

- Introduction to Advanced Manufacturing
- Industry 4.0 and IIoT (Industrial Internet of Things)
- Safety Responsibilities
- Practicing Safety in the Workplace
- Types of PPE
- Hazardous Materials Standards
- Hazardous Materials Handling and Storage
- Machine Safety
- Equipment Safety
- Material Handling and Robot Safety
- Safety Inspection and Analysis
- Work Area Safety
- Training
- Fire and Electrical Safety
- Emergency and Accident Response
- Introduction to Communications
- Receiving Communications
- Communication Method
- Introduction to Teams
- Production Team Communication
- Team Ideation
- Workplace Behavior

Quality Practices & Measurement

- Introduction to Quality
- Dimensional Measurement
- Measurement Conversion
- Introduction to Print Reading
- Multiview Drawings
- Blueprint Dimensions and Notes
- Manufacturing Drawings and Scales
- Welding Symbols
- Tolerancing
- Caliper Measurement
- Micrometer Measurement
- Indicator Measurement
- Quality Inspections and Audits
- Introduction to Quality Tools
- Preventive and Corrective Action
- Basic Statistical Concepts
- Introduction to Control Charts

Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)

- [Academic Integrity Statement](#)

- [Accessibility Services](#)

Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.

- [Get Help: JCC & Community Resources](#)

- [Emergency Closing Procedures](#)

- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Date: Fall 2024