Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. Industrial Technology COURSE NUMBER: CMAE 1522

NUMBER OF CREDITS: 2 Credits (2 lecture)

COURSE TITLE: Quality Practices

CATALOG DESCRIPTION: Introduces quality management systems and its components. This course is designed to align with the National Skills assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers.

AUDIENCE: 

FULFILLS MN TRANSFER CURRICULUM AREA(S) *(Leave blank if not applicable)*
Area: by meeting the following competencies:
Area: by meeting the following competencies:
Area: by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:

LENGTH OF COURSE: 2 credits (2 lecture)

THIS COURSE IS USUALLY OFFERED: Every other year

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: This course will help students achieve basic knowledge of:
   a. Quality management systems
   b. Internal audits
   c. Metrics
   d. Corrective action

2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through:
   a. Completing homework (reading, reports, and worksheets)
   b. Participating in classroom discussions
c. Taking open and closed book quizzes and tests
d. Complete assigned lab projects

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a. Participating in class discussions and reports
   b. Participating in assignments, worksheets, and reports

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   a. Participating in classroom discussions
   b. Working with other students on labs
   c. Working with students from other cultures

TOPICS TO BE COVERED:
1. Quality management systems
2. Internal audit activities
3. Continuous improvement
4. Material Inspection
5. Corrective actions
6. Metrics

LIST OF EXPECTED COURSE OUTCOMES:
1. Explain periodic or statistically based internal quality audit activities.
2. Describe checking and documentation of calibration of gauges and other data collection equipment.
3. Explain continuous improvement.
4. Discuss inspection of materials and product/process at all stages to ensure they meet specifications.
5. Describe documentation of results of quality tests.
6. Explain communication regarding quality problems.
7. Identify corrective actions to restore or maintain quality.
8. Explain how to properly record process outcomes and trends.
9. Identify fundamentals of blueprint reading.
10. Use common measurement systems and precision measurement tools.

LEARNING/TEACHING TECHNIQUES used in the course are:

☒ Collaborative Learning  ☒ Problem Solving
☐ Student Presentations  ☒ Interactive Lectures
☐ Creative Projects  ☒ Individual Coaching
☒ Lecture  ☒ Films/Videos/Slides
☒ Demonstrations  ☐ Other (describe below)
ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

- ☑ Reading
- ☑ Tests
- ☑ Individual Projects
- ☑ Oral Presentations
- ☑ Worksheets
- ☑ Collaborative Projects
- ☑ Textbook Problems
- ☑ Papers
- ☑ Portfolio
- ☑ Group Problems
- ☑ Term Paper
- ☑ Other (describe below)

EXPECTED STUDENT LEARNING OUTCOMES:

1. Explain quality management systems
2. Demonstrate testing and measuring
3. Communicate quality problems
4. Participate in internal audit activities
5. Take corrective action

The information in this course outline is subject to revision.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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7/30/13