MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

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 1518

NUMBER OF CREDITS: 2 Credits (2 lecture)

COURSE TITLE: Manufacturing Process and Production

CATALOG DESCRIPTION:
Emphasizes manufacturing principles, basic supply chain management, communication skills, and customer service. 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 ☐ fall ☐ spring ☐ summer ☐ undetermined ☒

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. Production processes
   b. Material requirements
   c. Compliance and customer requirements

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. Identify customer needs
2. Production processes
3. Equipment set up
4. Job assignments
5. Material requirements
6. Process compliance
7. Customer requirements

LIST OF EXPECTED COURSE OUTCOMES:
1. Explain aspects of identifying customer needs.
2. Discuss how to determine resources available for the production process.
3. Identify set-up and verification of equipment for the production process.
4. Describe the process of setting team production goals.
5. Explain job assignments
6. Identify work flow with team members and other work groups.
7. Discuss communication of production, material requirements, and product specifications.
8. Explain how to perform, monitor, and document the process to make the product.
9. Identify documentation and compliance process in regards to customer requirements.
10. Explain the process of preparing the final product for shipping or distribution.

LEARNING/TEACHING TECHNIQUES used in the course are:
- Collaborative Learning
- Problem Solving
- Student Presentations
- Interactive Lectures
- Creative Projects
- Individual Coaching
- Lecture
- Films/Videos/Slides
ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

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

EXPECTED STUDENT LEARNING OUTCOMES:

1. Demonstrate an understanding of manufacturing and production processes.
2. Students will identify customer needs and will ensure that processes are in compliance with customer requirements.
3. Communicate material and product requirements.

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