

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

DEPT. CMAE

COURSE NUMBER: 1526

NUMBER OF CREDITS: 2

Lecture: 2 Lab: 0 OJT 0

<b>Course Title:</b>
Maintenance Awareness

<b>Catalog Description:</b>
Maintenance Awareness introduces the concepts of Total Productive Maintenance and preventative maintenance. 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.

<b>Prerequisites or Necessary Entry Skills/Knowledge:</b>
None

**FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)**

Goal 1: Communication: \_\_\_\_ by meeting the following competencies:

Goal 2: Critical Thinking: \_\_\_\_ by meeting the following competencies:

Goal 3: Natural Sciences: \_\_\_\_ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: \_\_\_\_ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: \_\_\_\_ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: \_\_\_\_ by meeting the following competencies:

Goal 7: Human Diversity: \_\_\_\_ by meeting the following competencies:

Goal 8: Global Perspective: \_\_\_\_ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: \_\_\_\_ by meeting the following competencies:

Goal 10: People and the Environment: \_\_\_\_ by meeting the following competencies:

<b>Topics to be Covered</b>
Preventative maintenance and Total Productive Maintenance.
Predictive maintenance.
Fundamentals of lubrication, electrical systems, hydraulics, pneumatics, and power transmission systems.
System monitors.
Importance of production schedules.
Maintenance issues in different systems

## Student Learning Outcomes

Explain concepts of preventative maintenance practices.

Apply predictive and preventative maintenance program skills for the following systems:

Electrical systems

Pneumatic systems

Hydraulic systems

Machine automation systems

Lubrication processes

Mechanical systems

Discuss Total Productive Maintenance.

Analyze potential maintenance issues with production equipment.

Explain documentation within a maintenance plan.

**Is this course part of a transfer pathway:** Yes ☐ No ☒

*\*If yes, please list the competencies below*

Revised Date: 1/2022