



South Central College

CMAE 1526 Maintenance Awareness

Course Outcome Summary

Course Information

Description	This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)
Total Credits	2
Total Hours	32

Types of Instruction

Instruction Type	Credits/Hours
Lecture	2/32

Pre/Corequisites

None

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Explain performance of preventative maintenance.

Learning Objectives

Identify the components of preparation and scheduling of preventative maintenance.
Discuss complete and timely documentation in regards to preventative maintenance.
Discuss communication of procedures, forms, and follow-up.

2. Discuss the concepts of routine repair.

Learning Objectives

Explain availability of necessary supplies needed to perform preventative maintenance and routine repair.
Discuss communications regarding routine repair.

Identify routine repair and preventative maintenance schedules, needs, and supplies.
Describe safety procedures for doing repairs.

3. Discuss monitoring indicators to ensure correct operations.

Learning Objectives

Describe regular comparison of current equipment performance to optimal equipment operations.
Explain investigation and correction of abnormal equipment conditions.
Discuss monitoring of equipment to ensure that any corrective action solved the problem.
Identify documentation steps to ensure equipment repair history is complete, up-to-date, and accurate.

4. Describe performance of housekeeping to maintain production schedule.

Learning Objectives

Identify proper and safe storage of tools and materials.
Recognize unsafe conditions and steps to identify and report them promptly.
Explain corrective action steps to be taken to correct unsafe conditions.
Describe a workstation clean and clear of safety hazards.
Explain scheduled housekeeping inspections.
Describe organization of workstations to maximize efficiency.

5. Recognize potential maintenance issues with basic production systems.

Learning Objectives

Identify potential maintenance issues with electrical, pneumatic, hydraulic, and machine automation systems.
Describe potential maintenance issues with lubrication processes, bearings and couplings, belts and chain drives.
Explain potential maintenance issues with high vacuum and laser systems.
Discuss the system components of Total Productive Maintenance (TPM).

6. Recognize the importance of documentation within a maintenance system.

Learning Objectives

Identify the necessity of keeping documentation up-to-date.
Explain processes for ensuring repair history is complete and accurate.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.