

MODULE TITLE	MAINTENANCE SYSTEMS
Nominal Duration	One Module
Module Code or Number	EA 602
Module Purpose	To enable students to select, implement, monitor and evaluate the appropriate Maintenance Systems to suit a range of industrial applications.
Relationship to Competency Standards	<p>This module will be modified in line with the requirements of the National Metals and Engineering Standards when they become available.</p> <p>The module contains the knowledge and skills identified and agreed by all states/territories. It has been developed on the assumption that these will be reflected in the Standards.</p>
Prerequisites	NBB02 Occupational Health and Safety
Summary of Content	<ol style="list-style-type: none">1. Maintenance Principles<ul style="list-style-type: none">- maintenance function- role of maintenance department- occupational health and safety requirements2. Maintenance Systems<ul style="list-style-type: none">- maintenance terminology- preventative maintenance- predictive maintenance- corrective maintenance3. Data Acquisition<ul style="list-style-type: none">- plant history cards/files- inspection techniques- predictive maintenance<ul style="list-style-type: none">- remote visual inspection- non-destructive testing- thermography- vibration analysis- oil analysis

4. Maintenance Plan
 - characteristics of plant operation
 - assessment of failure characteristics
 - link failure characteristics to maintenance systems
 - identify production windows
 - resources
 - labour
 - materials
 - establish plan
 - implementation procedures

5. Review of Maintenance Plan
 - analysis of records
 - manual recording methods
 - computerised recording methods

Delivery

Learning outcomes

On completion of this module the student will be able to:

Learning outcome 1

Identify and describe the function and role of the maintenance department in an industrial situation.

Assessment criteria

Outline the function and role of the maintenance department in your workplace including Occupational Health and Safety requirements.

Conditions

Assessment method

Assignment

Learning outcome 2

List and explain the advantages and disadvantages of maintenance systems currently used in industry.

Assessment criteria

Identify and describe three (3) types of maintenance systems that are currently operating or could be implemented in your workplace.

Conditions

Assessment method

Project

Learning outcome 3**Determine the methods used to acquire data for use in the development and evaluation of maintenance systems.**

Assessment criteria

List and describe the instruments and techniques used to record and acquire data for the various maintenance systems.

Conditions

Assessment method

Project

Learning outcome 4**Develop and implement a maintenance plan to suit a range of industrial applications.**

Assessment criteria

Create a maintenance plan to suit your workplace, include the implementation procedures.

Conditions

Assessment method

Project

Learning outcome 5**Monitor and evaluate the operation and effectiveness of a maintenance plan.**

Assessment criteria

Identify and describe methods used to check the effectiveness of a maintenance plan.

Conditions

Assessment method

Project

**Suggested Learning
Resources**

Kelly, Anthony, *Maintenance and Its Management* (1989),
EIT Publications

Patton, Joseph, *Preventative Maintenance* (1983)

Higgins, Lindley R, *Maintenance Engineering Handbook*
(1988), McGraw Hill Inc, USA

Winter, John L, *Maintenance*
Maintenance Australia & New Zealand Journal, EIT
Publications.

Industrial maintenance reference guide
New York: McGraw-Hill, 1987.

Higgins, Lindley R.
Maintenance engineering handbook
New York: McGraw-Hill, 1994