

# Unit Outline (Higher Education)

**Institute / School:** Institute of Innovation, Science & Sustainability

**Unit Title:** Maintenance Management

**Unit ID:** MREGC5002

**Credit Points:** 15.00

**Prerequisite(s):** Nil

**Co-requisite(s):** Nil

**Exclusion(s):** Nil

**ASCED:** 039999

**Description of the Unit:**

This unit introduces the fundamentals of maintenance management. It covers introduction to computerised maintenance management system (CMMS), maintenance planning, scheduling and control, roles and responsibilities of the work management process, implementation of maintenance planning systems, objectives of the maintenance department, types of failures and maintenance strategies. It also encompasses organisational structures of a maintenance department, job descriptions and role accountabilities and documentation requirements for CMMS systems depending on size and type of organisation. This is an important foundational unit for students interested in practicing good asset management and maintenance management.

**Grade Scheme:** Graded (HD, D, C, P, MF, F, XF)

**Work Experience:**

No work experience

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

**Course Level:**

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Learning Outcomes:

#### Knowledge:

- K1.** Define Maintenance Management Systems and Processes and the application used to manage the asset throughout the life cycle.
- K2.** Distinguish the roles and responsibilities within the Asset Management department and their accountabilities of the Maintenance Management processes.
- K3.** Appraise and determine correct application of maintenance strategy selection methodologies.

#### Skills:

- S1.** Evaluate a CMMS/EAM application and appraise process application
- S2.** Analyse the results of work management processes and identify improvement opportunities.
- S3.** Prepare recommendations for introduction or change of new processes/systems

#### Application of knowledge and skills:

- A1.** Differentiate the elements of a maintenance management system and the maintenance management planning processes with alignment to the maintenance organisational roles.
- A2.** Develop recommendations for change or improvements of the maintenance systems and application
- A3.** Articulate the linkage and benefits between occupational health and safety and the maintenance management systems.

### Unit Content:

This unit covers maintenance planning, objectives of the maintenance department and introduces computerised maintenance management system (CMMS).

Introduction to Maintenance Management.

Maintenance Planning.

Computerised Maintenance Management Systems.

The Maintenance Organisation.

Occupational Health and Safety in Maintenance Work.

Planning for the future in maintenance management.

### FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students will demonstrate high-level skills to effectively communicate, interact and work with others both individually and in groups Students will be required to display (in person and/or online) high-level skills in-person and/or online in: <ul style="list-style-type: none"> <li>• Effective verbal and non-verbal communication via a range of synchronous and asynchronous methods</li> <li>• Active listening for meaning and influencing</li> <li>• High-level empathy for others</li> <li>• Negotiating and demonstrating extended conflict resolution skills</li> <li>• Working respectfully in cross-cultural and diverse teams</li> </ul>	Not applicable	Not applicable
FEDTASK 2 Leadership	Students will demonstrate the ability to apply leadership skills and behaviours Students will be required to display skills in: <ul style="list-style-type: none"> <li>• Creating, contributing to, and enabling collegial environments</li> <li>• Showing self-awareness and the ability to self-reflect for personal growth</li> <li>• Inspiring and enabling others</li> <li>• Making informed and evidence-based decisions through consultation with others</li> <li>• Displaying initiative and ability to solve problems</li> </ul>	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complex and ambiguous environments, using their imagination to create new ideas Students will be required to display skills in: <ul style="list-style-type: none"> <li>• Reflecting critically on complex problems</li> <li>• Synthesising, evaluating ideas, concepts and information</li> <li>• Proposing alternative perspectives to refine ideas</li> <li>• Challenging conventional thinking to clarify concepts through deep inquiry</li> <li>• Proposing creative solutions in problem solving</li> </ul>	Not applicable	Not applicable
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work proficiently across a range of tools, platforms and applications to achieve a range of tasks Students will be required to display high-level skills in: <ul style="list-style-type: none"> <li>• Finding, accessing, collating, evaluating, managing, curating, organising and appropriately and securely sharing complex digital information at a high-level</li> <li>• Receiving and responding to messages in a range of digital media</li> <li>• Using digital tools appropriately to conduct research</li> <li>• Contributing proficiently to digital teams and working groups</li> <li>• Participating in and utilising digital learning opportunities</li> </ul>	Not applicable	Not applicable
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to think ethically and sustainably. Students will be required to display skills in: <ul style="list-style-type: none"> <li>• The responsible conduct of research</li> <li>• Making informed judgments that consider the impact of devising solutions in multiple global economic environmental and societal contexts</li> <li>• Demonstrating commitment to social responsibility as a professional and a citizen</li> <li>• Generating research solutions which are sustainable, ethical, socially responsible and/or sustainable</li> <li>• Extending lifelong, life-wide and life-deep learning to be open to diverse others</li> <li>• Demonstrate extended actions to foster sustainability in their professional and personal life.</li> </ul>	Not applicable	Not applicable

**Learning Task and Assessment:**

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, S1, S2, S3, A1, A2, A3	Analysis and report on maintenance planning and system.	Analysis and report	20%-40%
K1, K2, K3, S1, S2, S3, A1, A2, A3	Analysis and report on maintenance organisation and organisation, health, safety and environment.	Analysis and report	20%-40%
K1, K2, K3, S1, S2, S3, A1, A2, A3	Examination or online test, report and online presentation .	Test, report and presentation	40%-60%

**Adopted Reference Style:**

IEEE ()

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)