Unit Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Unit Title:	Asset Management Techniques
Unit ID:	MREGC5004
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED:	039999

Description of the Unit:

This unit covers asset management including relevant international standards such as ISO55000, ISO55002 and ISO55010 to support the application of the ISO55001 requirements. It also covers the Asset Management System (documented system) and the development of Strategic Asset Management Plan (SAMP), Asset Management Plan (AMP) in-line with ISO55001 standard and the application of Reliability Centred Maintenance processes. Analysis of costs, budgets and risks, Logistic Support and Inventory required for maintenance management and requirements of Asset Information Systems are also covered in this unit.

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						
Intermediate					✔	
Advanced						

Learning Outcomes:

Knowledge:

K1. Describe the scope of Asset Management as per international standard.

K2. Explain the techniques used in asset management.

K3. Recognise and describe processes used to solving a variety of real-life asset management problems.

Skills:

S1. Assess SAMP and AMP in-line with the international standard.

S2. Develop and implement SAMP and AMP in-line with the international standard.

Application of knowledge and skills:

A1. Apply requirements of international standard in developing SAMP & AMP.

A2. Evaluate and reduce gaps in SAMP & AMP.

A3. Solve real life asset management problems for reducing costs and risks and enhancing performance.

Unit Content:

This unit covers Asset management standard in line with ISO55000, ISO55002 and ISO55010 to support the application of the ISO55001 requirements.
Topics may include:
1. Introduction to Asset Management.
2. ISO5500x series of standards.
3. Reliability Centred Maintenance (RCM).
4. Life Cycle Costing, budgeting and risk applicable to asset management.
5. Logistic support and inventory management.
6. Assets and Asset Information System.
7. Equipment Replacement, Reliability, Availability and Maintainability and KPI.
8. Maintenance organisation and budget.

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**ttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are be 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 at this level will demonstrate an advanced ability in a range of contexts to effectively communicate, interact and work with others both individually and in groups. Students will be required to display high level skills in-person and/or online in: • Using and demonstrating a high level of verbal and non-verbal communication • Demonstrating a mastery of listening for meaning and influencing via active listening • Demonstrating and showing empathy for others • High order skills in negotiating and conflict resolution skills\\ • Demonstrating mastery of working respectfully in cross-cultural and diverse teams.	Not applicable	Not applicable
FEDTASK 2 Leadership	Students at this level will demonstrate a mastery in professional skills and behaviours in leading others. • Creating and sustaining a collegial environment • Demonstrating a high level of self-awareness and the ability to self-reflect and justify decisions • Inspiring and initiating opportunities to lead others • Making informed professional decisions • Demonstrating initiative in new professional situations.	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students at this level will demonstrate high level skills in working in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: • Reflecting critically to generate and consider complex ideas and concepts at an abstract level • Analysing complex and abstract ideas, concepts and information • Communicate alternative perspectives to justify complex ideas • Demonstrate a mastery of challenging conventional thinking to clarify complex concepts • Forming creative solutions in problem solving to new situations for further learning.	Not applicable	Not applicable
FEDTASK 4 Digital Literacy	Students at this level will demonstrate the ability to work competently across a wide range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: • Mastering, exploring, evaluating, managing, curating, organising and sharing digital information professionally • Collating, managing complex data, accessing and using digital data securely • Receiving and responding professionally to messages in a range of professional digital media • Contributing competently and professionally to digital teams and working groups • Participating at a high level in digital learning opportunities.	Not applicable	Not applicable
FEDTASK 5 sustainable and Ethical Mindset	Students at this level will demonstrate a mastery of considering and assessing the consequences and impact of ideas and actions in enacting professional ethical and sustainable decisions. Students will be required to display skills in: • Demonstrate informed judgment making that considers the impact of devising complex solutions in ambiguous global economic environmental and societal contexts • Professionally committing to the promulgation of social responsibility • Demonstrate the ability to evaluate ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Communicating lifelong, life-wide and life-deep learning to be open to the diverse professional others • Generating, leading and implementing required actions to foster sustainability in their professional and personal life	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, S1, S2, A1, A2, A3	Report of review or development of Strategic Asset Management Plan.	Report	20% - 40%
K1, K2, K3, S1, S2, A1, A2, A3	Analysis and report of Asset Management Plan.	Analysis and report	40% - 50%
K1, K2, K3, S1, S2, A1, A2, A3	Review of online posts and discussion.	Online discussion	10% - 20%

Adopted Reference Style:

Other (IEEE)

Refer to the library website for more information

Fed Cite - referencing tool