DPEPM2615: Process Management

MODULE DETAILS		**Process Management DPEPM2615** Nominal duration in hours: 36 This time commitment includes the structured activities, preparation reading, and attendance at each webinar, completing exercises, practical assessments, and proctored assessments. It is also expected that students spend additional time on readings, personal study, independent research, and learning, practicing on remote labs and required software and working on any projects and assignments. This module covers the theory, concepts and principles of process management, the control and optimisation of processes, and strategies for managing risk and enhancing sustainability.	
MODULE PURPOSE		The purpose of this module for the participants to develop knowledge of the theory of process management, techniques for optimising process operations, and be able to outline risk management and sustainability approaches.	
MODIFICATION HISTORY		Rev 4.0	
PREREQUISITE AND/OR CO-REQUISITE MODULES		N/A	
SUMMARY OF LEARNING OUTCOMES		1. Outline theories and principles of process plant management 2. Analyse systems for industrial process optimisation 3. Compare management strategies for risks and sustainability in process operations	
LEARNING OUTCOMES		**ASSESSMENT CRITERIA**	
Learning outcomes specify what students will be able to do as a result of the learning.		Assessment criteria provide the criteria by which achievement of the learning outcomes will be judged.	
1	Outline theories and principles of process plant management	1.1	Describe core process plant management principles and practices
		1.2	Explain key attributes of a plant process
		1.3	Explain the relationships between process design, control, and optimisation in industrial operations
2	Analyse systems for industrial process optimisation	2.1	Explain the role of monitoring and control systems in optimising plant operations
		2.2	Compare and contrast control methodologies for improving industrial processes
		2.3	Explain methods applicable for monitoring, analysis and improvement of process efficiency and reliability
		2.4	Outline advanced process monitoring techniques
3.	Compare management strategies for risk and sustainability in process operations	3.1	Identify risks in an industrial process
		3.2	Explain approaches to risk management in industrial plant
		3.3	Assess the effectiveness of risk management and contingency planning strategies for maintaining plant process safety and uptime

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		3.4	Assess strategies for implementing sustainable practices in plant processes in relation to energy efficiency and environmental compliance
DELIVERY MODE		Online and/or face-to-face	
SPECIALISED RESOURCES		N/A	
ASSESSMENT STRATEGY		**METHODS OF ASSESSMENT** Assessors must gather a range of evidence that is valid, sufficient, current, and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, structured assessments, samples, and questioning. This will include short answer questions on the knowledge content, the use of remote and virtual labs, and writing tasks to apply the learning to academic tasks. **CONDITIONS OF ASSESSMENT** **Assessor Requirements:** Assessors must satisfy the assessor requirements in the standards for registered training organisations (RTOs) current at the time of assessment. Assessors must also hold a tertiary qualification in engineering or related field. The RTO must also ensure that assessors are able to demonstrate how they keep their industry knowledge up to date through ongoing professional development. The RTO must take appropriate steps, as an ongoing procedure, to verify information about each assessor's qualifications, vocational competencies, and current industry skills. **Assessment Conditions:** Questioning techniques should not require language, literacy, and numeracy skills beyond those required in this module. The candidate must have access to all tools, equipment, materials, and documentation required.	

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	The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals, and reference materials. Assessments may be open book assessment and may be completed off campus. Invigilation software will be used for some assessments to ensure authenticity of work completed. Model answers and marking guide must be provided for all knowledge-based assessments to ensure reliability of assessment judgements when marking is undertaken by different assessors