DPEEN2617: Environmental Engineering

MODULE DETAILS		**Environmental Engineering DPEEN2617** Nominal duration in hours: 24 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 environmental management alongside pollution control and waste management for industrial plants.	
MODULE PURPOSE		The purpose of this module is for the participants to develop a general knowledge of aspects of environmental management, pollution control, and sustainability for industrial plants.	
MODIFICATION HISTORY		Rev 4.0	
PREREQUISITE AND/OR CO-REQUISITE MODULES		N/A	
SUMMARY OF LEARNING OUTCOMES		1. Outline fundamental attributes of environmental management for industrial plants 2. Outline fundamental attributes of pollution control and sustainability in industrial plants	
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 fundamental attributes of environmental management for industrial plants	1.1	Explain key aspects of the role of environmental engineers in process plants
		1.2	Outline the role of environmental management systems (EMS) in addressing key environmental challenges in process plants
		1.3	Identify sources and compliance requirements of applicable Standards and Regulations impacting plant environmental management
2	Outline fundamental attributes of pollution control and sustainability for industrial plants	2.1	Outline common sources of pollution in process plants
		2.2	Describe techniques for pollution control at industrial plants
		2.3	Outline practices and technologies available for integrating pollution controls into sustainable plant operations
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	

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	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. 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.

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	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.