



ADVANCED DIPLOMA OF ELECTRICAL AND INSTRUMENTATION (E&I) ENGINEERING FOR OIL AND GAS FACILITIES

MODULE DETAILS

MODULE 6: Switchgear for Power Distribution

Nominal duration: 2 weeks (16 hours total time commitment)

This time commitment includes the preparation reading, attendance at each webinar (1 hour plus 15-30 minutes for discussion), and the time necessary to complete the assignments and further study.

MODULE PURPOSE

This is a practical module in power distribution, focusing on medium voltage (1kV-36kV) and low voltage switchgear. It provides technical know-how in these areas generally not covered by university or college programs.

PRE-REQUISITE MODULES/UNIT(S)

Module 4: Power Distribution

ASSESSMENT STRATEGY

To evaluate the achievement of the learning outcomes; written assignments, group projects and practical exercises are set.

SUMMARY OF LEARNING OUTCOMES

1. Examine and discuss the basics of medium voltage and low voltage switchgear [6.1]
2. Examine and discuss medium voltage and low voltage circuit breakers [6.2]

Learning Outcome 1

Examine and discuss the basics of medium voltage and low voltage switchgear [6.1]

Assessment Criteria

1. Describe MV and LV switchgear applications [6.1.1]
2. Describe MV and LV switchgear construction [6.1.2]
3. Examine and discuss metering, protection and control for MV and LV switchgear [6.1.3]
4. Discuss asset management for MV and LV switchgear [6.1.4]



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Learning Outcome 2	Examine and discuss medium voltage and low voltage circuit breakers	[6.2]
Assessment Criteria	1. Explain the basics of circuit breakers	[6.2.1]
	2. Discuss the specification and ratings of circuit breakers	[6.2.2]
	3. Describe the main parts of MV and LV circuit breakers and their functions	[6.2.3]

Delivery Mode

A combination of asynchronous and synchronous e-learning delivery comprising a judicious mix of interactive online web conferencing, simulation (virtual labs) software, remote online labs, online videos, Power Points, notes, reading and study materials (in pdf, html and word format) accessed through the Moodle Learning Management System (LMS).