



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

MODULE DETAILS

MODULE 3: Electrical Drawings, Documentation and Schematics

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 module covers all these aspects with respect to engineering drawings in general and electrical drawings in particular. Various types of electrical drawings and their application, the steps in planning a drawing, selection of drawing size and scale, use of standardized symbols etc. will be described in detail with commonly used examples from industry practice. The use of CAD-CAM tools presents its own challenges in the way drawings are stored, shared between different groups of users, and revised for re-use. The module also covers these aspects and takes a look at future possibilities in the way drawings will be used to disseminate information.

PRE-REQUISITE MODULES/UNIT(S)

Module 1: Fundamentals of Electrical Engineering

ASSESSMENT STRATEGY

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

SUMMARY OF LEARNING OUTCOMES

1. Interpret drawing types, symbols and attributes [3.1]
2. Examine and discuss the basics of CAD, drawing layout and drawing management [3.2]

Learning Outcome 1

Interpret drawing types, symbols and attributes [3.1]

Assessment Criteria

1. Discuss the fundamentals of Electrical Engineering drawings [3.1.1]
2. Recognize electrotechnology symbols [3.1.2]
3. Interpret schematic and logic diagrams [3.1.3]



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Learning Outcome 2	Examine and discuss the basics of CAD, drawing layout and drawing management	[3.2]
Assessment Criteria	1. Interpret various types of plant drawings such as cabling and wiring diagrams	[3.2.1]
	2. Examine and discuss the basics of CAD	[3.2.2]
	3. Discuss the basics of drawing management	[3.2.3]

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).