

## ADVANCED DIPLOMA OF BIOMEDICAL ENGINEERING

MODULE DETAILS	<b>MODULE 4: ENGINEERING DRAWINGS</b>
	<p>Nominal duration: 4 weeks (48 hours total time commitment)</p> <p>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.</p>
<b>MODULE PURPOSE</b>	To provide participants with a detailed overview of the various types of engineering drawings, standards governing them, symbols used in engineering, and advances arising from Computer Aided Drafting (CAD).
<b>PRE-REQUISITES MODULE, UNITS / CO-REQUISITES</b>	Nil
<b>ASSESSMENT STRATEGY</b>	To evaluate the achievement of the learning outcomes; written assignments, group projects and practical exercises are set.
<b>SUMMARY OF LEARNING OUTCOMES</b>	<ol style="list-style-type: none"> <li>1. Examine and discuss the fundamentals of drawings, components, attributes and symbols</li> <li>2. Examine and discuss the basics of single-line, 3-line, schematic and logic diagrams</li> <li>3. Examine and discuss the basics of cabling, wiring and layout diagrams</li> <li>4. Examine and discuss the basics of CAD and drawing management</li> </ol>
<b>Learning Outcome 1</b>	<b>Examine and discuss the fundamentals of drawings, components, attributes and symbols</b>
<b>Assessment Criteria</b>	<ol style="list-style-type: none"> <li>1.1 Discuss the fundamentals of Engineering drawings</li> <li>1.2 Demonstrate an awareness of drawing components, sizes, and scales</li> <li>1.3 Recognize electro-technology symbols</li> <li>1.4 Demonstrate an awareness of governing standards</li> </ol>

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<b>Learning Outcome 2</b>	<b>Examine and discuss the basics of single-line, 3-line, schematic and logic diagrams</b>
<b>Assessment Criteria</b>	2.1 Interpret the following types of diagrams: (a) Single-line (b) 3-line (c) Schematic (d) Logic
<b>Learning Outcome 3</b>	<b>Examine and discuss the basics of cabling, wiring and layout diagrams</b>
<b>Assessment Criteria</b>	3.1 Interpret the following types of diagrams: (a) Cabling (b) Wiring (c) Layout
<b>Learning Outcome 4</b>	<b>Examine and discuss the basics of CAD and drawing management</b>
<b>Assessment Criteria</b>	4.1 Create a simple CAD drawing 4.2 Discuss the basics of drawing management
<b>Delivery Mode</b>	
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, PowerPoints, notes, reading and study materials (in pdf, html and word format) accessed through the Moodle Learning Management System (LMS).	