

**REQUIRED SKILLS AND KNOWLEDGE – UEENEEE107A****KS01-EE107A Drawings, diagrams and schedules**

<b>Topic and Description</b>	<b>NIDA Lesson</b>	<b>CARD #</b>
<p>T1 Architectural drawings encompassing:</p> <ul style="list-style-type: none"><li>• site plans, floor plans detailed drawings and standard drawings</li><li>• architectural floor plan to determine the power and lighting or communications / audio/ video layouts required in a domestic installation</li><li>• site plan to locate the service point, consumers mains, communication services, main switchboard, distribution boards and/or builders supplies.</li><li>• standard drawing scales to determine the actual lengths represented by dimensions on an architectural drawing.</li><li>• reading and interpretation of floor plans to determine the location of the electrical/ communication/audio accessories and appliances.</li><li>• Australian standard symbols used on floor plans to show the location of the accessories and appliances as detailed in an electrical schedule.</li></ul>		
<p>T2 Electrical drawings encompassing:</p> <ul style="list-style-type: none"><li>• types of electrical drawings: block, circuit, wiring and ladder diagrams</li><li>• purpose and application of block, circuit, wiring diagrams and ladder diagrams</li><li>• Australian standard symbols used to represent components on electrical diagrams.</li><li>• conventions used in and the features of circuit diagrams</li><li>• converting a circuit diagram to a wiring diagram</li><li>• identification of cable type, origin and route from a cable schedule.</li></ul>		

<ul style="list-style-type: none"> <li>developing a cable schedule for a given installation.</li> </ul>		
<p>T3 Circuit diagrams encompassing:</p> <ul style="list-style-type: none"> <li>purpose of circuit diagrams in the electrotechnology industry</li> <li>conventions used in and the features of circuit diagrams</li> <li>sketching basic circuit diagrams</li> <li>common symbols used in circuit diagram (Australian Drawing Standard AS/NZS 1102)</li> <li>developing switching charts to identify the terminals of various types of switches</li> <li>connecting equipment using circuit diagrams.</li> </ul>	<p>5021-112-280 Schematic Diagrams</p> <ul style="list-style-type: none"> <li>Understand the purpose of a schematic diagram.</li> <li>Understand general concepts concerning schematic diagrams.</li> </ul>	
<p>T4 Wiring diagrams encompassing:</p> <ul style="list-style-type: none"> <li>purpose of wiring diagrams in the electrotechnology industry</li> <li>conventions used in and the features of wiring diagrams</li> <li>sketching basic wiring diagrams</li> <li>common symbols used in wiring diagram (Australian Drawing Standard AS/NZS 1102)</li> <li>connecting equipment using wiring diagrams.</li> </ul>		
<p>T5 Building construction drawings and diagrams encompassing:</p> <ul style="list-style-type: none"> <li>building types: timber frame, brick veneer, double brick and metal frame.</li> <li>identification of different types of: footings, floors, external walls, roofs, interior walls</li> <li>typical cable routes through buildings, structures and premises</li> <li>sequence of each constructional stage for brick, brick veneer and timber cottages</li> <li>identification of the stages at which the electrical/communications - first and second fixing occurs in the constructional sequence</li> </ul>		

<ul style="list-style-type: none"> <li>• areas of cooperation between electrical/communications and other building trades</li> <li>•</li> </ul>		
<b>KS02-EE107A Introduction to regulations, compliance standards and codes</b>		
<p>T1 Regulation for undertaking electrical work encompassing:</p> <ul style="list-style-type: none"> <li>• scope of work covered by licensing in the electrotechnology industry (Electrical licensing)</li> <li>• legislative requirements for ensuring electrical or electronic equipment is safe i.e. compliance requirements of electrical installations</li> </ul>		
<p>T2 Standards philosophy and format encompassing:</p> <ul style="list-style-type: none"> <li>• performance verses prescriptive requirements</li> <li>• purpose of technical standards and their development</li> <li>• role of standards Australia/New Zealand, International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC)</li> <li>• how standards are used in compulsory and accreditation compliance schemes.</li> <li>• arrangement and use of technical standards in relation to electrical and electronic work</li> <li>• how to read and apply a standard.</li> <li>• Standards and codes that apply to all types of electrical installations</li> <li>• Standards include Standards mandated under regulation (e.g. Wiring Rules) or by an authority, deemed-to-comply standard and local service requirements (e.g. Service rules).</li> <li>• Codes include those applicable to electrical safe working practices and some aspects of the Building Code of Australia.</li> </ul>		

<p>T3 Purpose, format and content of typical job specifications encompassing: NATSPEC specification system - provide the most common templates on which job specification are written.</p>		
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