

**Course outline: 322 Equipment Install G104A**  
**UEENEEG104A - Install appliances, switchgear and associated accessories**  
**for low voltage electrical installations**

<b>Qualification:</b>	Certificate III in Electrotechnology Electrician - UEE30811
<b>Applicable to:</b>	Learners, industry/employers, governments, community and Global Energy Training Solutions as the provider
<b>Unit of competency:</b>	Accessible from: <a href="http://training.gov.au/Training/Details/UEENEEG104A">http://training.gov.au/Training/Details/UEENEEG104A</a>
<b>Related policies:</b>	<p>Policy &amp; Procedure 1 – Enrolment Policy</p> <p>Policy &amp; Procedure 2 – Credit Transfer &amp; Recognition of Prior Learning</p> <p>Policy &amp; Procedure 3 – Learner Support</p> <p>Policy &amp; Procedure 4 – Assessment</p> <p>Policy &amp; Procedure 5 – Academic Misconduct</p> <p>Policy &amp; Procedure 6 – Alcohol &amp; Other Drugs</p> <p>Policy &amp; Procedure 7 – Access, Equity &amp; Diversity</p> <p>Policy &amp; Procedure 8 – Vulnerable People</p> <p>Policy &amp; Procedure 9 – Work, Health &amp; Safety</p> <p>Policy &amp; Procedure 10 – Incident, Injury &amp; Rehabilitation</p> <p>Policy &amp; Procedure 11 – Competency, &amp; Qualification Assessment Decisions</p> <p>Policy &amp; Procedure 12 – Complaints &amp; Appeals</p> <p>Policy &amp; Procedure 13 – Privacy</p> <p>Policy &amp; Procedure 14 – Fees</p> <p>Policy &amp; Procedure 15 – Industry &amp; Employer Engagement</p> <p>Policy &amp; Procedure 16 – Trainers &amp; Assessors</p> <p>Policy &amp; Procedure 17 – Administration &amp; Other Staff</p> <p>Policy &amp; Procedure 18 – Quality Assurance</p> <p>Policy &amp; Procedure 19 – Business &amp; Financial Risk Management</p> <p>Policy &amp; Procedure 20 – Changes to Qualifications or Business</p> <p>Policy &amp; Procedure 21 – Conflict of Interest</p> <p>Policy &amp; Procedure 22 – Records Management</p> <p>Policy &amp; Procedure 23 – Marketing &amp; Advertising</p>
<b>Monitor and review:</b>	Policy & Procedure 18 – Quality Assurance
<b>Responsibility:</b>	Ben Murphy – as Proprietor
<b>Questions/queries:</b>	Feedback and suggestions welcomed: <a href="mailto:office@gets.com.au">office@gets.com.au</a> (+61) 02 6262 0077

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### 1. Material requirements

- AS/NZS 3000:2007 incorporating amendment 1 and 2
- Scientific calculator, ruler, pens and pencils
- Note book
- Hand tools
- Covered footwear
- Internet access (provided)

### 2. Session summaries

Day 1	
Required Skills and Knowledge	<p>T1 Installation standards, codes and requirements applicable to installing electrical equipment encompassing.</p> <ul style="list-style-type: none"> <li>• Protection against thermal effects</li> <li>• Connection of electrical equipment (appliances, switchgear and accessories include switchgear and controlgear, switchboards, socket-outlets, lighting equipment and accessories, lamps and luminaires, smoke and fire detectors, cooking appliances, appliances producing hot water or steam, room heaters, electric heating cables for floors and ceilings, space heating, duct heaters, electricity converters, motors, transformers, capacitors, and batteries).</li> <li>• Required and permitted locations current-using equipment and accessories</li> <li>• Control, switching and over current and RCD protection</li> </ul> <p>T2 Terminal configuration for connection of phase, neutral and protective earthing conductors for each type of equipment.</p>

Day 2	
Required Skills and Knowledge	<p>T3 Building codes affecting the installation of current-using equipment and accessories in buildings, structures and premises encompassing:</p> <ul style="list-style-type: none"> <li>• maintenance of fire protection integrity, requirements for emergency services (safety services) and the like.</li> </ul> <p>T4 Issues affecting electrical installations in heritage buildings and premises encompassing:</p> <ul style="list-style-type: none"> <li>• limitation on types and colour of exposed accessories.</li> </ul>

### 3. Elements and Performance Criteria:

Elements and Performance Criteria require practice and demonstration in the work place.

Element	Performance Criteria	Work Performance
1:Prepare to install appliances, switchgear and associated accessories	1.1 OHS procedures for a given work area are identified, obtained and understood.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.2 Health and safety risks are identified and established risk control measures and procedures in preparation for the work are followed.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.3 Safety hazards that have not previously been identified are noted and established risk control measures are implemented.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.4 Installation is prepared in consultation with others affected by the work and sequenced appropriately.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.5 The nature and location of the work is determined from documentation or appropriate person to establish the scope of work to be undertaken.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.6 Locations of appliances, switchgear and accessories is planned within the constraints of the building structure, significants and requirements.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.7 Material needed for the installation work is obtained in accordance with established procedures and checked against job requirements.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.8 Tools, equipment and testing devices needed to for the installation work are obtained in accordance with established procedures and checked for correct operation and safety.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	1.9 Preparatory work is checked to ensure no damage has occurred and complies with requirements.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
2:Install appliances, switchgear and associated accessories	2.1 OHS risk control measures and procedures for carrying out the work are followed.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.2 The need to test or measure live is determined in strict accordance with OHS requirements and when necessary conducted within established safety procedures.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.3 Circuits/machines/plant are checked as being isolated where necessary in strict accordance OHS requirements and procedures.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.4 Appliances, switchgear and accessories are installed to comply with technical standards and job specifications and requirements with sufficient access to affect terminations, adjustment and maintenance.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.5 Accessories are installed straight and square in the required locations and within acceptable tolerances.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.6 Wiring is terminated at appliances, switchgear and accessories in accordance with manufacturer's specifications and functional and regulatory requirements.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed

	2.7	Ongoing compliance and safety inspections of the installed appliances, switchgear and accessories is undertaken.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.8	Defects revealed through on-going compliance and safety inspection are rectified.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.9	Installation is carried out efficiently without unnecessary waste of materials or damage to apparatus, circuits, the surrounding environment or services and using sustainable energy principles.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	2.10	Unexpected situations are dealt with safely and with the approval of an authorised person.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
3:Completion and report installation activities	3.1	OHS work completion risk control measures and procedures are followed.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	3.2	Work site is cleaned and made safe in accordance with established procedures.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed
	3.3	'As-installed' appliances, switchgear and accessories is documented and an appropriate person or persons notified in accordance with established procedures.	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Not performed

#### 4. Assessments

Assessment	When	Satisfactory mark/outcome
Theory assessment 1	Day 2	70%
Practical assessment 1	Day 2	100%
Workplace Observation	After theory and practical assessments	Must be valid, sufficient, authentic and current
Employer Competency report		
Structured workplace experience interview		
Note: Once all theory, practical and on-site assessments are complete, competency assessment decisions can be made in conjunction with the learner, employer and registered training organisation.		

#### 5. Version control

Version	Date of release	Author	Authorised by	Position	Rational for change
V1	5/10/2015	Ben Murphy	Ben Murphy	Proprietor	Initial release
V2	7/2/2017	Ben Murphy	Ben Murphy	Proprietor	Added Elements and Performance Criteria