


**Qualification outline: UEE30820 - Certificate III in Electrotechnology Electrician**  
**Global Energy Training Solutions - RTO code: 41319**

	Term 1		Term 2		Term 3		Term 4	
<b>Yr 1</b>	<b>Orientation</b> UEECO0023 1 day <b>WH&amp;S</b> UEECD0007 2 days	<b>Workshop</b> UEECD0019 5 days	<b>Drawings</b> UEECD0051 5 days	<b>Fixings</b> UEECD0020 1 day <b>CPR</b> HLTAID009 1/2 day <b>Live Rescue</b> UETDRRF004 1/2 day	<b>Series DC</b> UEECD0046 4 days	<b>Parallel DC</b> UEECD0044 6 days	<b>Cables</b> UEEEL0023 3 days	<b>Magnetism</b> UEEEL0021 3 days <b>DC Machines</b> UEEEL0019 3 days
<b>Yr 2</b>	<b>AC Theory</b> UEEEL0020 10 days		<b>Transformers</b> UEEEL0025 2 days <b>AC Machines</b> UEEEL0024 4 days		<b>Environmental</b> UEERE0001 2 days	<b>Power</b> UEEEL0010 2 days <b>Heating</b> UEEEL0008 2 days <b>Lighting</b> UEEEL0009 2 days	<b>Risk Assessment</b> UEECD0016 1 day <b>Protection Methods</b> UEEEL0003 5 days	<b>Alternative Supplies</b> UEEEL0047 2 days <b>Testing</b> UEEEL0014 3 days
<b>Yr 3</b>	<b>Cable Selection</b> UEEEL0018 8 days		<b>Control Circuits</b> UEEEL0005 7 days		<b>Equipment Install</b> UEEEL0012 3 days	<p align="center"><b>+ Electives</b></p> <p align="center"><b>Electives are mostly evening courses with occasional day courses</b></p> <p align="center">120 points of electives required</p> <p align="center">See electives on offer overleaf</p>		
<b>Yr 4</b>	<p align="center"><b>Categories</b></p> <p align="center">Cabling or practical  Electrical theory  Australian wiring rules  Electives</p>		<p align="center"><b>Site visits</b></p> <p align="center">From Magnetism UEEEL0021 onwards, site visits are required for verification of competency</p>		<p align="center"><b>Tutorials</b></p> <p align="center">Tuesdays, Wednesdays and Thursdays 3:30 to 6:30 pm  Mondays and Friday 3:30 to 5 pm  (Excluding Public Holidays, all of January and the last week in December)</p>		<p align="center"><b>Capstone</b>  UEEEL0039  8 days (over 3 weeks)</p>	

1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Capstone
<p><b>Orientation:</b></p> <ul style="list-style-type: none"> <li>UEECO0023 - Participate in electrical work and competency development activities</li> </ul> <p><b>WH&amp;S:</b></p> <ul style="list-style-type: none"> <li>UEECD0007 - Apply work health and safety regulations, codes and practices in the workplace</li> </ul> <p><b>Workshop:</b></p> <ul style="list-style-type: none"> <li>UEECD0019 - Fabricate, assemble and dismantle utilities industry components</li> </ul> <p><b>Drawings:</b></p> <ul style="list-style-type: none"> <li>UEECD0051 - Use drawings, diagrams, schedules, standards, codes and specifications</li> </ul> <p><b>Fixings:</b></p> <ul style="list-style-type: none"> <li>UEECD0020 - Fix and secure electrotechnology equipment</li> </ul> <p><b>CPR:</b></p> <ul style="list-style-type: none"> <li>HLTAID009 - Provide cardiopulmonary resuscitation</li> </ul> <p><b>Live Rescue:</b></p> <ul style="list-style-type: none"> <li>UETDRRF004 - Perform rescue from a live LV panel</li> </ul>	<p><b>AC Theory:</b></p> <ul style="list-style-type: none"> <li>UEEEL0020 - Solve problems in low voltage a.c. circuits</li> </ul> <p><b>Transformers:</b></p> <ul style="list-style-type: none"> <li>UEEEL0025 - Test and connect transformers</li> </ul> <p><b>AC Machines:</b></p> <ul style="list-style-type: none"> <li>UEEEL0024 - Test and connect alternating current (a.c.) rotating machines</li> </ul> <p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>UEERE0001 - Apply environmentally and sustainable procedures in the energy sector</li> </ul> <p><b>Power:</b></p> <ul style="list-style-type: none"> <li>UEEEL0010 - Evaluate and modify low voltage socket outlets circuits</li> </ul> <p><b>Heating:</b></p> <ul style="list-style-type: none"> <li>UEEEL0008 - Evaluate and modify low voltage heating equipment and controls</li> </ul> <p><b>Lighting:</b></p> <ul style="list-style-type: none"> <li>UEEEL0009 - Evaluate and modify low voltage lighting circuits, equipment and controls</li> </ul>	<p><b>Cable Selection:</b></p> <ul style="list-style-type: none"> <li>UEEEL0018 - Select wiring systems and select cables for low voltage electrical installations</li> </ul>	<p><b>Capstone:</b></p> <ul style="list-style-type: none"> <li>UEEEL0039 - Design, install and verify compliance and functionality of general electrical installations</li> </ul>
<p><b>Series DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0046 - Solve problems in single path circuits</li> </ul> <p><b>Parallel DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0044 - Solve problems in multiple path circuits</li> </ul>	<p><b>Risk Assessment:</b></p> <ul style="list-style-type: none"> <li>UEECD0016 - Document and apply measures to control WHS risks associated with electrotechnology work</li> </ul>	<p><b>Control Circuits:</b></p> <ul style="list-style-type: none"> <li>UEEEL0005 - Develop and connect electrical control circuits</li> </ul>	<p><b>Stand-alone courses</b></p>
<p><b>Cables:</b></p> <ul style="list-style-type: none"> <li>UEEEL0023 - Terminate cables, cords and accessories for low voltage circuits</li> </ul>	<p><b>Protection Methods:</b></p> <ul style="list-style-type: none"> <li>UEEEL0003 - Arrange circuits, control and protection for electrical installations</li> </ul> <p><b>Alternative Supplies:</b></p> <ul style="list-style-type: none"> <li>UEEEL0047 - Identify, shut down and restart systems with alternate supplies</li> </ul>	<p><b>Equipment Install:</b></p> <ul style="list-style-type: none"> <li>UEEEL0012 - Install low voltage wiring, appliances, switchgear and associated accessories</li> </ul>	<p><b>Solar Design:</b></p> <ul style="list-style-type: none"> <li>UEERE0061 - Design grid-connected photovoltaic power supply systems</li> </ul>
<p><b>Magnetism:</b></p> <ul style="list-style-type: none"> <li>UEEEL0021 - Solve problems in magnetic and electromagnetic devices</li> </ul> <p><b>DC Machines:</b></p> <ul style="list-style-type: none"> <li>UEEEL0019 - Solve problems in direct current (d.c.) machines</li> </ul>	<p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>UEEEL0014 - Isolate, test and troubleshoot low voltage electrical circuits</li> </ul>	<p><b>Elective option 1 – Solar (110/120 elective points) (10 points as Credit Transfer or from Batteries)</b></p>	<p><b>Battery Install: (30 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0078 - Install battery storage to power conversion equipment</li> </ul> <p><b>Battery Inverter Install: (30 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0077 - Install battery storage equipment power conversion equipment to grid</li> </ul>
<p><b>Series DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0046 - Solve problems in single path circuits</li> </ul> <p><b>Parallel DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0044 - Solve problems in multiple path circuits</li> </ul>	<p><b>Protection Methods:</b></p> <ul style="list-style-type: none"> <li>UEEEL0003 - Arrange circuits, control and protection for electrical installations</li> </ul> <p><b>Alternative Supplies:</b></p> <ul style="list-style-type: none"> <li>UEEEL0047 - Identify, shut down and restart systems with alternate supplies</li> </ul>	<p><b>Grid Connect Site Survey: (30 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0054 - Conduct site survey for grid-connected photovoltaic and battery storage systems</li> </ul>	<p><b>Battery Design:</b></p> <ul style="list-style-type: none"> <li>UEERE0060 - Design grid-connected battery storage systems</li> </ul>
<p><b>Cables:</b></p> <ul style="list-style-type: none"> <li>UEEEL0023 - Terminate cables, cords and accessories for low voltage circuits</li> </ul>	<p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>UEEEL0014 - Isolate, test and troubleshoot low voltage electrical circuits</li> </ul>	<p><b>Solar Install: (30 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0081 - Install photovoltaic systems to power conversion equipment</li> </ul>	<p><b>Fibre:</b></p> <ul style="list-style-type: none"> <li>UEEDV0006 - Install and modify optical fibre performance data communication cabling</li> </ul>
<p><b>Magnetism:</b></p> <ul style="list-style-type: none"> <li>UEEEL0021 - Solve problems in magnetic and electromagnetic devices</li> </ul> <p><b>DC Machines:</b></p> <ul style="list-style-type: none"> <li>UEEEL0019 - Solve problems in direct current (d.c.) machines</li> </ul>	<p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>UEEEL0014 - Isolate, test and troubleshoot low voltage electrical circuits</li> </ul>	<p><b>Solar Inverter Install: (30 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0080 - Install photovoltaic power conversion equipment to grid</li> </ul>	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Additional fees apply for training over 120 elective points</li> <li>Prerequisites apply</li> </ul>
<p><b>Series DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0046 - Solve problems in single path circuits</li> </ul> <p><b>Parallel DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0044 - Solve problems in multiple path circuits</li> </ul>	<p><b>Protection Methods:</b></p> <ul style="list-style-type: none"> <li>UEEEL0003 - Arrange circuits, control and protection for electrical installations</li> </ul> <p><b>Alternative Supplies:</b></p> <ul style="list-style-type: none"> <li>UEEEL0047 - Identify, shut down and restart systems with alternate supplies</li> </ul>	<p><b>Solar Safety: (20 points)</b></p> <ul style="list-style-type: none"> <li>UEERE0049 - Apply safe work practices in the rooftop solar industry</li> </ul>	<p>Acknowledgment: Australian Apprenticeships in the ACT are funded by the ACT and Australian Governments.</p>
<p><b>Cables:</b></p> <ul style="list-style-type: none"> <li>UEEEL0023 - Terminate cables, cords and accessories for low voltage circuits</li> </ul>	<p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>UEEEL0014 - Isolate, test and troubleshoot low voltage electrical circuits</li> </ul>	<p><b>Elective option 2 – Telecommunications (120/120 elective points)</b></p>	 <p>NATIONALLY RECOGNISED TRAINING</p>
<p><b>Magnetism:</b></p> <ul style="list-style-type: none"> <li>UEEEL0021 - Solve problems in magnetic and electromagnetic devices</li> </ul> <p><b>DC Machines:</b></p> <ul style="list-style-type: none"> <li>UEEEL0019 - Solve problems in direct current (d.c.) machines</li> </ul>	<p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>UEEEL0014 - Isolate, test and troubleshoot low voltage electrical circuits</li> </ul>	<p><b>ACMA: (80 points)</b></p> <ul style="list-style-type: none"> <li>UEEDV0005 - Install and maintain cabling for multiple access to telecommunication services</li> </ul>	<p>RTO code: 41319</p>
<p><b>Series DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0046 - Solve problems in single path circuits</li> </ul> <p><b>Parallel DC:</b></p> <ul style="list-style-type: none"> <li>UEECD0044 - Solve problems in multiple path circuits</li> </ul>	<p><b>Protection Methods:</b></p> <ul style="list-style-type: none"> <li>UEEEL0003 - Arrange circuits, control and protection for electrical installations</li> </ul> <p><b>Alternative Supplies:</b></p> <ul style="list-style-type: none"> <li>UEEEL0047 - Identify, shut down and restart systems with alternate supplies</li> </ul>	<p><b>Structured &amp; Coax: (40 points)</b></p> <ul style="list-style-type: none"> <li>UEEDV0008 - Install, modify and verify coaxial and structured communication copper cabling</li> </ul>	<p>UEE30820_Qualification_Outline_V2.5</p>