

# **UEE31211 Certificate III in Instrumentation and Control**

Release: 2



#### **UEE31211 Certificate III in Instrumentation and Control**

#### **Modification History**

| Releas<br>e | Action | Core/Elective | Details  | Points |
|-------------|--------|---------------|--|--------|
| 2           | Update | Group A       | HLTCPR211A Perform CPR   | 10     |
| 2           | Update | Group A       | HLTFA311A Apply first aid  | 10     |
| 2           | Edit   |               | Edit Name to reflect correct Unit title  UEENEED104A Use engineering applications software on personal computers | 40     |

### **Description**

#### Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain systems and devices for measurement and recording of physical/chemical phenomenon and related process control.

# **Pathways Information**

Not applicable.

# Licensing/Regulatory Information

Not applicable.

# **Entry Requirements**

Not applicable.

### **Employability Skills Summary**

Not applicable.

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## **Packaging Rules**

#### **Completion requirements**

The requirements for granting this qualification will be met when competency is demonstrated and achieved for:

- All the Core competency standard units, defined in the Core Competency Standard Units table below and
- A combination of Elective competency standard units to achieve a total weighting of 140 points in accordance with the Elective Competency Standard Units table below.

| Core Competency                                   | Weighting   |        |
|---|---|--------|
| All Core competency standard units to be achieved |   | Points |
| UEENEEC024B                                       | Participate in instrumentation and control work and competency development activities   | 60     |
| UEENEEE101A                                       | Apply Occupational Health Safety regulations, codes and practices in the workplace      | 20     |
| UEENEEE102A                                       | Fabricate, dismantle, assemble of utilities industry components                         | 40     |
| UEENEEE104A                                       | Solve problems in d.c. circuits   | 80     |
| UEENEEE105A                                       | Fix and secure electrotechnology equipment  | 20     |
| UEENEEE107A                                       | Use drawings, diagrams, schedules, standards, codes and specifications                  | 40     |
| UEENEEE119A                                       | Solve problems in multiple path a.c. circuits   | 40     |
| UEENEEE137A                                       | Document and apply measures to control OHS risks associated with electrotechnology work | 20     |
| UEENEEI101A                                       | Use instrumentation drawings, specifications, standards and equipment manuals           | 40     |
| UEENEEI102A                                       | Solve problems in pressure measurement circuits and systems                             | 40     |
| UEENEEI103A                                       | Solve problems in density/level measurement circuits and systems                        | 40     |
| UEENEEI104A                                       | Solve problems in flow measurement circuits and systems                                 | 40     |
| UEENEEI105A                                       | Solve problems in temperature measurement circuits                                      | 40     |

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| Core Competency                                   | Weighting  |        |
|---|--|--------|
| All Core competency standard units to be achieved |  | Points |
|   | and systems  |        |
| UEENEEI106A                                       | Set up and adjust PID process control loops  | 40     |
| UEENEEI107A                                       | Install process instrumentation and tubing and control cabling                     | 20     |
| UEENEEI108A                                       | Install process control apparatus and associated equipment                         | 20     |
| UEENEEI110A                                       | Set up and adjust advanced process control loops                                   | 40     |
| UEENEEI111A                                       | Find and rectify faults in process final control elements                          | 40     |
| UEENEEI112A                                       | Verify compliance and functionality of instrumentation and control installations   | 40     |
| UEENEEI113A                                       | Setup and configure human-machine interface (HMI) and industrial networks          | 60     |
| UEENEEI150A                                       | Develop, enter and verify discrete control programs for programmable controllers   | 60     |
| UEENEEK 142A                                      | Apply environmental and sustainable procedures in the energy sector                | 20     |
| UEENEEP013A                                       | Disconnect /reconnect control devices connected to low voltage installation wiring | 60     |
| Total points in co                                | ore  | 920    |

# Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 140 points from the following groups: Group Minimum points Maximum points

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| A | Imported and Common Elective Units Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points. | 0  | 60  |
|---|--|----|-----|
| В | Qualification Elective Units  You may select all your elective units from this Group   | 80 | 140 |

| Group A – Imported You may complete us | Weighting<br>Points  |                 |
|--|--|-----------------|
| UEENEEC001B                            | Maintain documentation   | 20              |
| UEENEEC002B                            | Source and purchase material/parts for installation or service jobs  | 20              |
| UEENEEC003B                            | Provide quotations for installation or service jobs  | 20              |
| UEENEEC010B                            | Deliver a service to customers   | 20              |
| UEENEED101A                            | Use basic computer applications relevant to a workplace  | 20              |
| UEENEEE009B                            | Comply with scheduled and preventative maintenance program processes   | 20              |
| UEENEEE020B                            | Provide basic instruction in the use of electrotechnology apparatus  | 20              |
| CPCCOHS1001A                           | Work safely in the construction industry   | 10              |
| HLTCPR211A                             | Perform CPR  | 10              |
| HLTFA311A                              | Apply first aid  | 10              |
|  | Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting | Up to 60 points |

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| will be 10 points.   |  |
|--|--|
|  |  |
| Note: For further information see Application of<br>the NQC Flexibility Formula, UEE11<br>Electrotechnology Training Package, Version 1,<br>Volume 1 Qualification Framework |  |

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| Group B – Qualification Complete units to a r | Weighting<br>Points   |     |
|---|---|-----|
| You may select all you                        |   |     |
| UEENEED104A                                   | Use engineering applications software on personal computers           | 40  |
| UEENEEH102A                                   | Repair basic electronic apparatus faults by replacement of components | 40  |
| UEENEEH111A                                   | Troubleshoot single phase input d.c. power supplies                   | 40  |
| UEENEEH112A                                   | Troubleshoot digital sub-systems                                      | 80  |
| UEENEEI114A                                   | Find and rectify faults in process control systems                    | 60  |
| UEENEEI115A                                   | Find and rectify faults in medical equipment and control systems      | 120 |
| UEENEEI117A                                   | Calibrate and test measuring instrumentation equipment                | 40  |
| UEENEEI118A                                   | Set up weighting measuring and control instruments                    | 20  |
| UEENEEI131A                                   | Set up gas analysis measuring and control instruments                 | 20  |
| UEENEEI132A                                   | Set up water analysis measuring and control instruments               | 20  |
| UEENEEI133A                                   | Set up scientific analysis measuring and control instruments          | 20  |
| UEENEEM019A                                   | Attend to breakdowns in hazardous areas — coal mining                 | 20  |
| UEENEEM020A                                   | Attend to breakdowns in hazardous areas — gas atmospheres             | 20  |
| UEENEEM021A                                   | Attend to breakdowns in hazardous areas — dust atmospheres            | 20  |
| UEENEEM022A                                   | Attend to breakdowns in hazardous areas — pressurisation              | 20  |
| UEENEEM023A                                   | Install explosion-protected equipment and wiring                      | 60  |

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|             | systems — coal mining  |    |
|-------------|--|----|
| UEENEEM024A | Install explosion-protected equipment and wiring systems — gas atmospheres   | 60 |
| UEENEEM025A | Install explosion-protected equipment and wiring systems — dust atmospheres  | 60 |
| UEENEEM026A | Install explosion-protected equipment and wiring systems — pressurisation    | 60 |
| UEENEEM027A | Maintain equipment in hazardous areas — coal mining                          | 60 |
| UEENEEM028A | Maintain equipment in hazardous areas — gas atmospheres                      | 60 |
| UEENEEM029A | Maintain equipment in hazardous areas — dust atmospheres                     | 60 |
| UEENEEM030A | Maintain equipment in hazardous areas — pressurisation                       | 60 |
| UEENEEM076A | Use and maintain the integrity of a portable gas detection device            | 20 |
| UEENEEM077A | Install and maintain the integrity of fixed gas detection equipment          | 20 |
| UEENEEM080A | Report on the integrity of explosion-protected equipment in a hazardous area | 20 |

#### Note:

- 1. Prerequisite pathways shall be identified and met for all elective units selected.
- 2. In selecting elective units considerations to career planning advice should be given to units that form part of a prerequisite pathway for the progression to achieve particular competencies or qualification at a higher level.

#### END OF QUALIFICATION

#### **Custom Content Section**

Not applicable.

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