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**REFRIGERATION AND AIR CONDITIONING ENGINEERING**

**CORE UNITS OF COMPETENCY**

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| **Trade** | | **Refrigeration and Air Conditioning Engineering** | |
| **AUSTRALIAN QUALIFICATION** | | UEE51211 Diploma of Air-conditioning and Refrigeration Engineering | |
| Core Competency Standard Units  All Core competency standard units to be achieved | | | Weighting Points |
| UEENEED104A | Use engineering applications software on personal computers | | 40 |
| UEENEEE038B | Participate in development and follow a personal competency development plan | | 20 |
| UEENEEE101A | Apply Occupational Health and Safety regulations, codes and practices in the workplace | | 20 |
| UEENEEE102A | Fabricate, assemble and dismantle utilities industry components | | 40 |
| UEENEEE103A | Solve problems in ELV single path circuits | | 40 |
| UEENEEE105A | Fix and secure electrotechnology equipment | | 20 |
| UEENEEE107A | Use drawings, diagrams, schedules, standards, codes and specifications | | 40 |
| UEENEEE117A | Implement and monitor energy sector OHS policies and procedures | | 20 |
| UEENEEE124A | Compile and produce an energy sector detailed report | | 60 |
| UEENEEE137A | Document and apply measures to control OHS risks associated with electrotechnology work | | 20 |
| UEENEEJ102A | Prepare and connect refrigerant tubing and fittings | | 30 |
| UEENEEJ103A | Establish the basic operating conditions of vapour compression systems | | 60 |
| UEENEEJ104A | Establish the basic operating conditions of air conditioning systems | | 20 |
| UEENEEJ106A | Install refrigerant pipe work, flow controls and accessories | | 60 |
| UEENEEJ107A | Install air conditioning and refrigeration systems, major components and associated equipment | | 80 |
| UEENEEJ108A | Recover, pressure test, evacuate, charge and leak test refrigerants | | 60 |
| UEENEEJ109A | Verify functionality and compliance of refrigeration and air conditioning installations | | 20 |
| UEENEEJ110A | Select refrigerant piping, accessories and associated controls | | 50 |
| UEENEEJ111A | Diagnose and rectify faults in air conditioning and refrigeration systems and components | | 40 |
| UEENEEJ113A | Commission air conditioning and refrigeration systems | | 40 |
| UEENEEJ127A | Establish the thermodynamic parameters of refrigeration and air conditioning systems | | 80 |
| UEENEEJ129A | Establish heat loads for commercial refrigeration and/or air conditioning applications | | 80 |
| UEENEEJ153A | Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems | | 50 |
| UEENEEJ164A | Analyse the operation of HVAC air and hydronic systems | | 80 |
| UEENEEJ165A | Evaluate thermodynamic and fluid parameters of refrigeration systems | | 100 |
| UEENEEJ170A | Diagnose and rectify faults in air conditioning and refrigeration control systems | | 70 |
| UEENEEJ192A | Analyse the psychrometric performance of HVAC/R systems | | 50 |
| UEENEEJ194A | Solve problems in low voltage refrigeration circuits | | 40 |
| UEENEEK145A | Implement and monitor energy sector environmental and sustainable policies and procedures | | 20 |
| UEENEEP012A | Disconnect / reconnect composite appliances connected to low voltage installation wiring | | 60 |
| UEENEEP017A | Locate and rectify faults in low voltage composite appliances using set procedures | | 20 |
| UEENEEP024A | Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply | | 20 |
| UEENEEP025A | Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply | | 20 |
| Total points in core | | | 1470 |
| Elective Units of Competency – Group A  You may complete units to a minimum weighting of 0 & maximum of 60 Weighting points. | | | |
|  |  | | 0 |
| **Elective Units of Competency – Group B**  You may complete units to a minimum weighting of 0 & maximum of 30 Weighting points. | | | |
| UEENEEJ119A | Resolve problems in ice making systems | | 20 |
| **Elective Units of Competency – Group C**  You may complete units to a minimum weighting of 0 & maximum of 50 Weighting points. | | | |
| UEENEEJ190A | Select basic commercial refrigeration system equipment, components and accessories | | 40 |
| **Elective Units of Competency – Group D**  You may complete units to a minimum weighting of 50 & maximum of 130 Weighting points.  You may select the majority of your elective units from this Group | | | |
| UEENEEJ132A | Design commercial refrigeration systems and select components | | 80 |

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| Australian Qualification | | UEE42911 Certificate IV in Refrigeration and Air-conditioning Systems | |
| Core Competency Standard Units  **All Core competency standard units to be achieved** | | | Weighting Points |
| UEENEEE038B | Participate in development and follow a personal competency development plan | | 20 |
| UEENEEE101A | Apply Occupational Health and Safety regulations, codes and practices in the workplace | | 20 |
| UEENEEE102A | Fabricate, assemble and dismantle utilities industry components | | 40 |
| UEENEEE103A | Solve problems in ELV single path circuits | | 40 |
| UEENEEE105A | Fix and secure electrotechnology equipment | | 20 |
| UEENEEE107A | Use drawings, diagrams, schedules, standards, codes and specifications | | 40 |
| UEENEEE124A | Compile and produce an energy sector detailed report | | 60 |
| UEENEEE137A | Document and apply measures to control OHS risks associated with electrotechnology work | | 20 |
| UEENEEJ102A | Prepare and connect refrigerant tubing and fittings | | 30 |
| UEENEEJ103A | Establish the basic operating conditions of vapour compression systems | | 60 |
| UEENEEJ104A | Establish the basic operating conditions of air conditioning systems | | 20 |
| UEENEEJ106A | Install refrigerant pipe work, flow controls and accessories | | 60 |
| UEENEEJ107A | Install air conditioning and refrigeration systems, major components and associated equipment | | 80 |
| UEENEEJ108A | Recover, pressure test, evacuate, charge and leak test refrigerants | | 60 |
| UEENEEJ109A | Verify functionality and compliance of refrigeration and air conditioning installations | | 20 |
| UEENEEJ110A | Select refrigerant piping, accessories and associated controls | | 50 |
| UEENEEJ111A | Diagnose and rectify faults in air conditioning and refrigeration systems and components | | 40 |
| UEENEEJ113A | Commission air conditioning and refrigeration systems | | 40 |
| UEENEEJ127A | Establish the thermodynamic parameters of refrigeration and air conditioning systems | | 80 |
| UEENEEJ129A | Establish heat loads for commercial refrigeration and/or air conditioning applications. | | 80 |
| UEENEEJ153A | Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems | | 50 |
| UEENEEJ170A | Diagnose and rectify faults in air conditioning and refrigeration control systems | | 70 |
| UEENEEJ192A | Analyse the psychrometric performance of HVAC/R systems | | 50 |
| UEENEEJ194A | Solve problems in low voltage refrigeration circuits | | 40 |
| UEENEEK145A | Implement and monitor energy sector environmental and sustainable policies and procedures | | 20 |
| UEENEEP012A | Disconnect / reconnect composite appliances connected to low voltage installation wiring | | 60 |
| UEENEEP017A | Locate and rectify faults in low voltage composite appliances using set procedures | | 20 |
| UEENEEP024A | Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply | | 20 |
| UEENEEP025A | Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply | | 20 |
| Total points in core | | | 1230 |
| **Elective Units of Competency – Group A**  You may complete units to a minimum weighting of 0 & maximum of 20 | | |  |
|  |  | | 0 |
| **Elective Units of Competency – Group B**  You may complete units to a minimum weighting of 0 & maximum of 30 | | |  |
| UEENEEJ119A | Resolve problems in ice making systems | | 20 |
| **Elective Units of Competency – Group C**  You may complete units to a minimum weighting of 20 & maximum of 50 | | |  |
| UEENEEJ190A | Select basic commercial refrigeration system equipment, components and accessories | | 40 |

**CRICOS No 00881F RTO No 0260. Training is deliver with Victorian and Commonwealth Government funding**

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| **Australian Qualification** | | UEE32211 Certificate III in Air-conditioning and Refrigeration | |
| **Core Competency Standard Units**  All Core competency standard units to be achieved | | | **Weighting points** |
| UEENEEC025B | Participate in refrigeration and air conditioning work and competency development activities | | 60 |
| UEENEEE101A | Apply Occupational Health and Safety regulations, codes and practices in the workplace | | 20 |
| UEENEEE102A | Fabricate, assemble and dismantle utilities industry components | | 40 |
| UEENEEE103A | Solve problems in ELV single path circuits | | 40 |
| UEENEEE105A | Fix and secure electrotechnology equipment | | 20 |
| UEENEEE107A | Use drawings, diagrams, schedules, standards, codes and specifications | | 40 |
| UEENEEE137A | Document and apply measures to control OHS risks associated with electrotechnology work | | 20 |
| UEENEEJ102A | Prepare and connect refrigerant tubing and fittings | | 30 |
| UEENEEJ103A | Establish the basic operating conditions of vapour compression systems | | 60 |
| UEENEEJ104A | Establish the basic operating conditions of air conditioning systems | | 20 |
| UEENEEJ106A | Install refrigerant pipe work, flow controls and accessories | | 60 |
| UEENEEJ107A | Install air conditioning and refrigeration systems, major components and associated equipment | | 80 |
| UEENEEJ108A | Recover, pressure test, evacuate, charge and leak test refrigerants | | 60 |
| UEENEEJ109A | Verify functionality and compliance of refrigeration and air conditioning installations | | 20 |
| UEENEEJ110A | Select refrigerant piping, accessories and associated controls | | 50 |
| UEENEEJ111A | Diagnose and rectify faults in air conditioning and refrigeration systems and components | | 40 |
| UEENEEJ113A | Commission air conditioning and refrigeration systems | | 40 |
| UEENEEJ153A | Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems | | 50 |
| UEENEEJ170A | Diagnose and rectify faults in air conditioning and refrigeration control systems | | 70 |
| UEENEEJ194A | Solve problems in low voltage refrigeration circuits | | 40 |
| UEENEEK142A | Apply environmentally and sustainable procedures in the energy sector | | 20 |
| UEENEEP012A | Disconnect / reconnect composite appliances connected to low voltage installation wiring | | 60 |
| UEENEEP017A | Locate and rectify faults in low voltage composite appliances using set procedures | | 20 |
| UEENEEP024A | Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply | | 20 |
| UEENEEP025A | Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply | | 20 |
| **Total points in core** | | | **1000** |
| **Elective Units of Competency – Group A**  You may complete units to a minimum weighting of 0 & maximum of 30 | | |  |
|  | | | 0 |
| **Elective Units of Competency – Group B**  Complete units to a minimum weighting of 30 & maximum of 60.  You may select all your elective units from this Group | | |  |
| UEENEEJ119A | Resolve problems in ice making systems | | 20 |
| UEENEEJ167A | Resolve problems in central plant air conditioning systems | | 40 |
| **Total points in electives** | | | 60 |

