



**Australian Government**

# **UEE61811 Advanced Diploma of Engineering Technology - Computer Systems**

**Release: 2**

# UEE61811 Advanced Diploma of Engineering Technology - Computer Systems

## Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

## Description

### Scope

This qualification provides enabling competencies to design, install/validate/evaluate and administer computer and network based systems and provide technical advice/sales.

## Pathways Information

Not applicable.

## Licensing/Regulatory Information

Not applicable.

## Entry Requirements

Not applicable.

## Employability Skills Summary

Not applicable.

## 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 1000 points in accordance with the Elective Competency Standard Units table below.

<b>Core Competency Standard Units</b>		<b>Weighting Points</b>
All Core competency standard units to be achieved		
UEENEED102A	Assemble, set-up and test personal computer hardware	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer software and hardware	120
UEENEED117A	Install and configure Internetworking systems	120
UEENEEE015B	Develop design brief for electrotechnology projects	40
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE081A	Apply material science to solving electrotechnology engineering problems	60
UEENEEE082A	Apply physics to solving electrotechnology engineering problems	60
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, dismantle, assemble of electrotechnology components	40
UEENEEE104A	Solve problems in d.c. circuits	80
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
UEENEEE125A	Provide solutions to complex multiple path circuits problems	60
UEENEEE126A	Provide solutions to basic engineering computational problems	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH188A	Design and develop electronics/computer systems projects	40
UEENEEK132A	Develop strategies to address environmental and sustainability issues in the energy sector	20
<b>Total points in core</b>		<b>1160</b>

### Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 1000 points from the following groups:

Group		Minimum points	Maximum points
<b>A</b>	<b>Imported and Common Elective Units</b> 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 6. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	360
<b>B</b>	<b>Qualification Elective Units</b>	0	200
<b>C</b>	<b>Qualification Elective Units</b>	0	200
<b>D</b>	<b>Qualification Elective Units</b>	0	300

<b>Elective Competency Standard Units</b>		
<b>Complete Elective units to achieve a total of weighting of 1000 points from the following groups:</b>		
<b>Group</b>	<b>Minimum points</b>	<b>Maximum points</b>
<b>A</b>	<b>Imported and Common Elective Units</b>	
	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 6. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
		360
<b>E</b>	<b>Qualification Elective Units</b>	
	You may select all your elective units from this Group	280
		1000

<b>Group A – Imported and Common Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 360		
BSBINM501A	Manage an information or knowledge management system	50
BSBINN502A	Build and sustain an innovative work environment	50
BSBMGT502B	Manage people performance	70
BSBMGT516C	Facilitate continuous improvement	60
BSBWOR502B	Ensure team effectiveness	60
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 computer applications relevant to a workplace	20
UEENEEE020B	Provide basic instruction in the use of	20

	electrotechnology apparatus	
	<p>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 6. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.</p> <p>Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework</p>	Up to 360 points

<b>Group B – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 200		
UEENEEA101A	Assemble electronic components	40
UEENEEA102A	Select electronic components for assembly	20
UEENEEA104A	Modify electronic sub assemblies	40
UEENEEA106A	Use lead-free soldering techniques	40
UEENEEED129A	Develop web pages for engineering applications	40
UEENEEED130A	Select, install, configure and test multimedia components	40
UEENEEED143A	Install and configure a client computer operating system and software	40
UEENEEED146A	Set up and configure basic local area network (LAN)	80
UEENEEED153A	Set up, configure and test biometric devices	40
UEENEEEEE105A	Fix and secure electrotechnology equipment	20
UEENEEEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEEF107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEEEF108A	Select and arrange equipment for wireless	40

	communication networks	
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40
UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEI116A	Enter and verify operating instructions in microprocessor equipped devices	20

<b>Group C – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 200		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEED103A	Evaluate and modify object oriented code programs	40



UEENEED113A	Install and administer Unix based networked computers	80
UEENEED115A	Administer computer networks	80
UEENEED124A	Integrate multiple computer operating systems on a client server local area network	80
UEENEED154A	Analyse and implement biometric measuring techniques and applications	120
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEH181A	Design electronic printed circuit boards	40

<b>Group D – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 300		
UEENEEC006B	Prepare tender submissions for electrotechnology projects	60
UEENEED110A	Set up, create and implement content for a web server	120
UEENEED111A	Develop, implement and test object oriented code	140
UEENEED116A	Develop computer network services	120
UEENEED155A	Develop and validate biometric equipment/systems installation	120
UEENEEE070B	Write specifications for computer systems engineering projects	40
UEENEED147A	Develop energy sector directory services	80
UEENEEE160A	Provide engineering solutions for uses of materials and thermodynamic effects	80
UEENEEH145A	Develop engineering solutions to analogue electronic problems	80
UEENEEH183A	Analyse the performance of wireless-based electronic/communication systems	40

<b>Group E – Qualification Elective Units</b>		<b>Weighting Points</b>
You must complete units to a minimum weighting of 280 You may select all your elective units from this Group		
UEENEED114A	Design and manage enterprise computer networks	80
UEENEED118A	Design and implement Internetworking systems	120
UEENEED119A	Design and implement Internetworking systems — advanced routing	100
UEENEED120A	Design and implement Internetworking systems — remote access	100
UEENEED121A	Design and implement Internetworking systems — multi-layer switching	100
UEENEED122A	Design and implement Internetworking systems — security	100
UEENEED123A	Design and implement Internetworking systems — wireless LANs/WANs	100
UEENEED148A	Plan computer systems projects	60
UEENEED150A	Develop control programs for micro-computer equipped devices	60
UEENEED151A	Provide programming solution for engineering problems	60
UEENEED152A	Design embedded controller systems	80
UEENEEE127A	Use advanced computational processes to provide solutions to energy sector engineering problems	80
UEENEEE128A	Develop engineering solutions to photonic system problems	80
UEENEED149A	Develop energy sector computer network applications infrastructure	80
UEENEEH147A	Assess electronic apparatus compliance	60
UEENEEH148A	Design and develop advanced digital systems	40
UEENEEH184A	Modify digital signal processing (DSP) based	80

	sub-systems	
UEENEEH185A	Design signal-conditioning subsystems	80

**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.
3. Registered training organisations shall also provide information related to the relevant pathway(s) that may be taken to achieve paraprofessional status ("associate membership") with a professional engineering membership organisation.

**END OF QUALIFICATION****Custom Content Section**

Not applicable.