



Australian Government

UEE50120 Diploma of Computer Systems Engineering

Release 1

UEE50120 Diploma of Computer Systems Engineering

Modification History

Release 1. This is the first release of this qualification in the UEE Electrotechnology Training Package

Qualification Description

This qualification covers competencies to develop, select, install, commission and maintain computer equipment and systems.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification

Packaging Rules

A total of **1600 weighting points** comprising:

140 core weighting points listed below; **plus**

1460 general elective weighting points from the general elective units listed below.

Choose a total of **1460 weighting points** elective units from the list below, of which between 0 and **270 weighting points** can be taken from Group A; and between 0 and **880 weighting points** must be taken from Group B; and between 0 and **580 weighting points** must be taken from Group C; and between 580 and **1040 weighting points** must be taken from Group D.

Up to 270 weighting points of the general elective units Group A, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or accredited course, provided selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in the UEE Electrotechnology Training Package Companion Volume Implementation Guide (CVIG), if not listed weighting points will be 10 points, unless directed from the Electrotechnology Industry Reference Committee (IRC).

There are units of competency within this qualification that contain pre-requisites. Units of competency that have a pre-requisite requirement are identified by this symbol *. Refer directly to the units of competency to identify pre-requisite requirements to ensure all are complied with. A list of all pre-requisites is also provided in the UEE Pre-requisite Companion Volume.

Where imported units are selected, care must be taken to ensure all pre-requisite units specified are complied with.

Core units		Weighting Points
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace	20
UEECD0016	Document and apply measures to control WHS risks associated with electrotechnology work*	20
UEECD0024	Implement and monitor energy sector WHS policies and procedures	20
UEECD0027	Participate in development and follow a personal competency development plan	20
UEECS0004	Commission industrial computer systems*	20
UEECS0025	Modify/redesign industrial computer systems*	20
UEERE0015	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Group A: Imported and common elective units.		Weighting Points
BSBCUS201	Deliver a service to customers	20
BSBINM501	Manage an information or knowledge management system	50
BSBINN502	Build and sustain an innovative work environment	50
BSBMGT502	Manage people performance	70
BSBMGT516	Facilitate continuous improvement	60
BSBWOR502	Lead and manage team effectiveness	60
ICTICT203	Operate application software packages	20
ICTTEN419	Implement and troubleshoot enterprise routers and switches	100
ICTTEN420	Design, install and configure an internetwork	100
ICTTEN421	Apply advanced routing protocols to network design	80

ICTTEN422	Configure and troubleshoot advanced network switching	80
ICTTEN423	Install and maintain a wide area network	80
UEECD0011	Comply with scheduled and preventative maintenance program processes	20
UEECD0035	Provide basic instruction in the use of electrotechnology apparatus	20
UEECO0002	Maintain documentation	20
UEECO0015	Provide quotations for installation or service jobs	20
UEECO0017	Source and purchase material/parts for installation or service jobs	20
Group B: Qualification elective units.		Weighting Points
UEEAS0001	Assemble electronic components*	40
UEEAS0003	Modify electronic sub-assemblies*	40
UEEAS0004	Select electronic components for assembly*	20
UEEAS0006	Use lead-free soldering techniques*	40
UEECD0019	Fabricate, assemble and dismantle utilities industry components*	40
UEECD0020	Fix and secure electrotechnology equipment*	20
UEECD0025	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits*	40
UEECD0040	Solve basic problems electronic and digital equipment and circuits*	80
UEECD0043	Solve problems in direct current circuits*	80
UEECD0045	Solve problems in multiple path extra-low voltage (ELV) a.c. circuits*	40
UEECD0051	Use drawings, diagrams, schedules, standards, codes and specifications*	40

UEECD0021	Identify and select components, accessories and materials for energy sector work activities*	20
UEECS0003	Assemble, set up and test computing devices*	80
UEECS0018	Develop web pages for engineering applications	40
UEECS0022	Install and configure a client computer operating system and software	40
UEECS0028	Select, install, configure and test multimedia components	40
UEECS0029	Set up and configure basic local area network (LAN)*	80
UEECS0030	Set up, configure and test biometric devices	40
UEECS0032	Support computer hardware and software for engineering applications	120
UEECS0033	Use engineering applications software on personal computers	40
UEEDV0004	Install and connect data and voice communication equipment*	40
UEEDV0005	Install and maintain cabling for multiple access to telecommunication services*	80
UEEDV0006	Install and modify optical fibre performance data communication cabling*	40
UEEDV0008	Install, modify and verify coaxial and structured communication copper cabling*	40
UEEDV0009	Select and arrange data and voice equipment for local area networks*	40
UEEDV0010	Select and arrange equipment for wireless communication networks*	40
UEEDV0012	Set up and configure the wireless capabilities of communications and data storage devices	40
UEEEC0003	Assemble and set up basic security systems*	80
UEEEC0019	Develop software solutions for microcontroller-based systems*	60

UEEEEC0027	Enter instructions and test wired and wireless security systems*	40
UEEEEC0042	Install large security systems*	100
UEEEEC0055	Repair basic computer equipment faults by replacement of modules/sub-assemblies*	40
UEEEEC0059	Repair routine business equipment faults*	120
UEEEEC0060	Repairs basic electronic apparatus faults by replacement of components*	40
UEEEEC0065	Solve problems in basic electronic circuits*	100
UEEEEC0066	Troubleshoot amplifiers in an electronic apparatus*	80
UEEEEC0067	Troubleshoot basic amplifier circuits*	40
UEEEEC0069	Troubleshoot digital sub-systems*	80
UEEEEC0072	Troubleshoot microcontroller-based hardware systems	40
UEEEEC0074	Troubleshoot resonance circuits in an electronic apparatus*	80
UEEEEC0075	Troubleshoot single phase input d.c power supplies*	40
UEEIC0002	Assemble, enter and verify operating instructions in microprocessor equipped devices*	20
UEEIC0047	Use instrumentation drawings, specifications, standards and equipment manuals*	40

Group C: Qualification elective units.**Weighting Points**

UEECD0010	Compile and produce an energy sector detailed report	60
UEECD0013	Develop and implement energy sector maintenance programs	60
UEECD0047	Supervise and coordinate energy sector work activities	40
UEECO0001	Estimate electrotechnology projects	40
UEECO0013	Prepare specifications for the supply of materials and	40

equipment for electrotechnology projects

UEECS0002	Analyse and implement biometric measuring techniques and applications	120
UEECS0014	Develop computer network services*	120
UEECS0020	Evaluate and modify object-oriented code programs	40
UEECS0021	Install and administer UNIX/LINUX-based networked computers	80
UEECS0023	Install and configure network systems for internetworking*	120
UEECS0024	Integrate multiple computer operating systems on a client server local area network	80
UEECS0031	Set up, create and implement content for a web server*	120
UEEIC0005	Configure and maintain industrial control system networks*	60
UEEIC0012	Develop structured programs to control external devices*	40
UEEIC0020	Fault find and repair analogue circuits and components in electronic control systems*	60

Group D: Qualification elective units.

Weighting Points

UEECD0014	Develop design briefs for electrotechnology projects	40
UEECD0036	Provide engineering solutions for problems in complex multiple path circuits	60
UEECD0039	Provide solutions to basic engineering computational problems*	60
UEECD0053	Write specifications for computer systems engineering projects	40
UEECO0014	Prepare tender submissions for electrotechnology projects*	60
UEECS0001	Administer computer networks	80

UEECS0007	Design and implement network systems for internetworking	120
UEECS0016	Develop energy sector directory services*	80
UEECS0017	Develop industrial control programs for microcomputer equipped devices	60
UEECS0019	Develop, implement and test object-oriented code*	140
UEECS0027	Provide programming solution for computer systems engineering problems	60
UEEEEC0001	Analyse the performance of wireless-based electronic communication systems*	40
UEEEEC0010	Design and develop advanced digital systems	40
UEEEEC0013	Design electronic printed circuit boards*	40
UEEEEC0015	Develop basic plans for integrating security systems*	40
UEEEEC0017	Develop engineering solutions to analogue electronic problems*	80
UEEIC0006	Design and configure human-machine interface (HMI) networks	60
UEEIC0010	Develop and test code for microcontroller devices	60

Qualification Mapping Information

This qualification replaces and is equivalent to UEE50111 Diploma of Computer Systems Engineering

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>