Australian Government

Department of Education, Employment and Workplace Relations

UEE61510 Advanced Diploma of Instrumentation and Control Engineering

Release: 1

UEE61510 Advanced Diploma of Instrumentation and Control Engineering

Modification History

Not Applicable

Description

Scope
This qualification provides competencies to design and validate/evaluate process control equipment and systems, manage risk, estimate and manage projects and provide technical advice/sales. It's also provides competencies to install, set up, test, develop, select, commission, maintain, diagnose faults/malfunctions of equipment and systems.

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 awarding this qualification are that the following are successfully achieved:

- All of the Core competency standard units;
- The required number of Stream Core competency standard units;
- The required number of Elective competency standard units as prescribed in the respective Schedule; and
- All the required pre-requisite competency standard units have been met as required.
    - Note: UEENEEI012B - Those holding an 'Certificate III in Instrumentation and Control trade qualification or equivalent" meet the requirements of this unit and its pre-requisite requirements.

Core Competency Standard Units

All Core competency standard units to be achieved

UEENEED007B	Develop, enter and verify programs for programmable logic controllers using ladder instruction set
UEENEEE001B	Apply OHS practices in the workplace
UEENEEE002B	Dismantle, assemble and fabricate electrotechnology components
UEENEEE003B	Solve problems in extra-low voltage single path circuits
UEENEEE004B	Solve problems in multiple path d.c. circuits
UEENEEE005B	Fix and secure equipment
UEENEEE007B	Use drawings, diagrams, schedules and manuals
UEENEEE011C	Manage risk in electrotechnology activities
UEENEEE017B	Implement and monitor OHS policies and procedures
UEENEEE024C	Compile and produce an electrotechnology report
UEENEEE025B	Solve problems in complex multiple path circuits
UEENEEE026B	Provide computational solutions to basic engineering problems
UEENEEE035B	Document occupational hazards and risks in instrumentation
UEENEEE038B	Participate in development and follow a personal

Core Competency Standard Units

All Core competency standard units to be achieved

	competency development plan
UEENEEE075B	Write specifications for industrial electronics and control projects
UEENEEH014B	Troubleshoot frequency dependent circuits
UEENEEH043B	Diagnose and rectify faults in digital subsystems of electronic controls
UEENEEH044B	Diagnose and rectify faults in analogue circuits and components in electronic control systems
UEENEEI001B	Install and set up transducers and sensing devices
UEENEEI002B	Solve problems in pressure measurement systems
UEENEEI003B	Solve problems in density/level measurement systems
UEENEEI004B	Solve problems in flow measurement systems
UEENEEI005B	Solve problems in temperature measurement systems
UEENEEI006B	Solve problems in process controllers, transmitters and converters
UEENEEI007C	Install process instrumentation and control cabling and tubing
UEENEEI008C	Install process control apparatus and associated equipment
UEENEEI010B	Set up and adjust process control loops
UEENEEI012B	Verify compliance and functionality of process control installations
UEENEEI013B	Select equipment for process control systems
UEENEEI034B	Manage control projects
UEENEEI035B	Plan control projects
UEENEEP001B	Disconnect and reconnect fixed wired electrical equipment connected to a Low Voltage supply

Stream Core Competency Standard Units

At least 2 of the following competency standard units to be achieved

BSBMGT502B	Manage people performance
BSBINM501A	Manage an information or knowledge management system
BSBMGT516C	Facilitate continuous improvement
BSBINN502A	Build and sustain an innovative work environment
BSBWOR502B	Ensure team effectiveness

Elective Competency Standard Units

In accordance with Schedules 3, 4, 5 and 6 which form an integral part of this qualification, achieve a Unit Strand Total of at least 38 of which at least 14 shall be selected from Schedule 6, and at least 14 from Schedule 5, and not more than 6 from Schedule 4 and not more than 4 from Schedule 3as specified.

Note: 1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.
3. Registered training organisations shall provide competency development advice in relation to any licensing requirements to practice that apply, or can contribute towards the qualification requirement, prior to establishing the competency development plan.
4. 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