



Australian Government

Department of Education, Employment and Workplace Relations

UEE61410 Advanced Diploma of Engineering - Explosion protection - Industrial control

Release: 1

UEE61410 Advanced Diploma of Engineering - Explosion protection - Industrial control

Modification History

Not Applicable

Description

Scope

This qualification provides competencies to assess and manage risk associated with hazardous areas, design and validate/evaluate explosion protection aspects of industrial control systems, audit explosion-protected installations and provide explosion protection technical advice/sales.

Note. This qualification relates to working with equipment and systems operating at extra-low voltage such as instrumentation, control buses, fire warning, security and communication.

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 a '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

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
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 competency development plan
UEENEEE075B	Write specifications for industrial electronics and control projects

Core Competency Standard Units

All Core competency standard units to be achieved

UEENEEI001B	Install and set up transducers and sensing devices
UEENEEI002B	Solve problems in pressure measurement systems
UEENEEI003B	Solve problems in pressure 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
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area
UEENEEM042A	Conduct visual inspection of hazardous areas installations
UEENEEM052A	Classify hazardous areas gas atmospheres
UEENEEM053A	Classify hazardous areas dust atmospheres
UEENEEM001B	Disconnect and reconnect fixed wired electrical equipment connected to a Low Voltage supply

Stream Core Competency Standard Units

At least 1 of the following competency standard units to be achieved

BSBMGT502B	Manage people performance
BSBINM501A	Manage an information or knowledge management

Core Competency Standard Units

All Core competency standard units to be achieved

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 46 of which at least 14 shall be selected from Schedule 6, and at least 14 from Schedule 5, and not more than 7 from schedule 4 as 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 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.

4. It is recommended that consideration be given to selecting from the following Units in meeting the elective requirements for this qualification:

UEENEEM078A Manage compliance of hazardous areas

UEENEEM047A Develop and manage maintenance programs for hazardous areas
electrical equipment coal mining

UEENEEM048A Develop and manage maintenance programs for hazardous areas
electrical equipment gas atmospheres

UEENEEM049A Develop and manage maintenance programs for hazardous areas
electrical equipment dust atmospheres

UEENEEM050A Develop and manage maintenance programs for hazardous areas
electrical equipment pressurisation

UEENEEM057A Design explosion-protected electrical systems and installations gas
atmospheres

UEENEEM058A Design explosion-protected electrical systems and installations dust
atmospheres

UEENEEM059A Design explosion-protected electrical systems and installations
pressurisation

UEENEEM064A Conduct audit of hazardous areas installations coal mining

UEENEEM065A Conduct audit of hazardous areas installations gas atmospheres

UEENEEM066A Conduct audit of hazardous areas installations dust atmospheres

UEENEEM067A Assess the fitness-for-purpose of hazardous areas explosion-
protected equipment coal mining

UEENEEM068A Assess the fitness-for-purpose of hazardous areas explosion-
protected equipment gas atmospheres

UEENEEM069A Assess the fitness-for-purpose of hazardous areas explosion-protected equipment dust atmospheres

END OF QUALIFICATION
