

1. Module details

Module name

Diagnose and rectify faults in apparatus and associated complex circuits - *Electrical work performance*

Module duration

The time taken to complete this module will vary depending on the opportunities in the work place for a student to develop their skills and the method used to obtain evidence of competent performance. Where evidence is obtained through formalised assessment event(s) under simulated conditions it would normally take a student 4 hours to successfully complete the module.

Module code

NEWP502b

Discipline code

2. Module purpose

This module provides methods and criteria for gathering evidence that shows a person has achieved the levels of performance expected for work and specified in Unit Diagnose and rectify faults in apparatus and associated complex circuits - *electrical*.

3. Prerequisites

This module shall be undertaken in conjunction with modules that provide the knowledge and skills underpinning performance.

4. Relationship to competency standards

This module supports Unit Diagnose and rectify faults in apparatus and associated complex circuits - *electrical* of the Electrotechnology Competency Standard.

5. Assessment strategy

Assessment methods

Evidence of competent performance may be gathered from real work activities, which are recorded by the use of work reports, logbooks, profiles or portfolios. The student's immediate supervisor shall confirm the accuracy of the evidence the student presents in this way. The supervisor must be competent in the area.

Alternatively, evidence may be obtained through formalised assessment events that simulate relevant work activities.

Conditions of assessment

Evidence of competent performance can be gathered from the workplace or a simulated work environment. A simulated environment would necessarily include equipment and wiring systems similar to those encountered in a real workplace. As well as the generic aspects of competency, assessment should take into account variations between particular industry sectors and different enterprises. For example equipment used in process industry will be different in some respects to that used in mining.

Assessment criteria

In judging work performance it is essential that evidence regarding the following aspects of competency is considered.

- Performance is autonomous and to requirements and **occurs on at least 3 occasions for each of the following elements:**
 - Plan and prepare to diagnose and rectify faults
 - Diagnose and rectify faults of apparatus and associated complex circuits
 - Inspect and notify completion of work
- **and at least 2 of the following apparatus and associated circuits:**
 - Switchboards/distribution boards
 - Protection
 - Motor control
 - Lighting control
 - Power control
 - Programmable controllers
 - Electricity distribution
 - Process control
- Applying **techniques, procedures, information and resources** relevant to performance.

Judgement shall be made on evidence gathered from a number of events showing the development of competent work performance over a period of time.

Resource requirements

Resources should be sufficient for participants to carry out activities, from which evidence may be gathered, on an individual basis. This will include access to tools, equipment, standards and other documents that are necessary to perform the activities required.

Occupational health and safety requirements

A safe and healthy environment will be provided for participants and assessors as well as safety procedure with regard to assessment activity.