

1. Module details

Module name

Fire Alarm Routine Testing

Module duration

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 36 - 40 hours.

Module code

NUE493

Discipline code

0703110

2. Module purpose

This module aims to provide the student with the skills to test different types of detectors & ancillary devices associated with fire alarm systems. On completion of this module the student will be able to select the correct test equipment and know the characteristics of the device they are testing.

3. Prerequisites

4. Relationship to competency standards

This module provides part of the underpinning knowledge and skills in the 'Evidence Guide' of specific units of competency in the National Electrotechnology Training Package and provides similar support, where mapped, to equivalent units in the National Metals and Engineering Competency Standards. For details refer to the module to unit maps, available from NUEITAB.

5. Content

1. Fire alarm test equipment

- heat testing equipment
- smoke testing equipment
- sound testing equipment

2. Fire alarm testing

- heat detector testing
- smoke detector testing
- system testing

3. Architectural drawings

- fire alarm system symbols (Australia standards)
- floor plans
- drawing upgrades

4. Site procedures and reporting

- OH&S
- test warning
- reporting – routine & fault
- documentation – routine & fault

6. Assessment strategy

Assessment methods

Assessment should be progressive reflecting a holistic approach to ensure the module purpose is met. To assist in ensuring validity, reliability and fairness assessment instruments should include practical exercises, assignments and written tests consisting of a number of item types, such as multiple choice, short answer and problem solving.

Conditions of assessment

Learning and assessment will take place in an environment that is conducive to a learner's development.

7. Learning outcome details

Learning outcome 1

Describe and demonstrate the use of test equipment used in fire detection systems

Assessment criteria

- 1.1 Describe the basic operating principle of a heat tester
- 1.2 Describe the basic operating principle of artificial smoke
- 1.3 Describe the basic operating principle of sound level meters
- 1.4 Use heater testers to check function of heat detector
- 1.5 Use artificial smoke to check function of smoke detectors
- 1.6 Operate fire alarm system to check function of warning devices

Learning outcome 2

Identify fire alarm system components from architectural drawings

Assessment criteria

- 2.1 Identify Australia Standard symbols for fire alarm system components
- 2.2 State the location by using floor plans of fire alarm panels, warning devices and detectors
- 2.3 Describe the process involved in upgrading drawings due to changes identified in fire detection system

Learning outcome 3

Describe and explain site procedures required any OH&S issues when testing a fire alarm system

Assessment criteria

- 3.1 List and familiarise OH&S requirements in relation to a fire alarm system
- 3.2 Describe the process of client awareness to proposed fire alarm tests
- 3.3 Demonstrate the correct use of log books
- 3.4 Explain the requirements of fault reporting

8. Delivery of the module

Delivery strategy

Delivery strategies must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective method to achieve this is by integration of theory and practice where students learn by experimentation, research and reports. It is recommended that learning and assessment be facilitated in a holistic manner that may require learning outcome sequence other than that indicated in the module.

Resource requirements

Resources should be sufficient for students to carry out learning activities on an individual basis.

Suggested Learning Resource:

Occupational health and safety requirements

A safe and healthy environment will be provided for students and teachers as well as the particular safety procedures followed as part of the learning / teaching activity and content.