

1. Module details	
Module name	Building Systems Safety
Suggested structured learning time	40 hours
Module code	NUE 501
Discipline code	0703225 Electrotechnology
2. Module purpose	This module provides the criteria for attributing competence to a learner through the assessment of knowledge, which is critical in the matter of evaluating the safety of those building systems and tools dealt with in this module.
3. Prerequisite modules	None
4. Relationship to competency standards	This module provides some of the skills and knowledge underpinning competence in the following: Electrotechnology Industry Training Package National Units of Competency, specifically NES 105i and NES 209A.
5. Content	The content of this module describes those basic principles of safe working which apply to the specific working environment(s) as listed hereunder: <ul style="list-style-type: none"> • Safety in scaffolding • Safety in excavations • Safe use of power tools
6. Assessment strategy	
Assessment methods	Students will not be assessed on the basis of an ability to construct scaffoldings or undertake excavations. They will be assessed on their knowledge of the Occupational Safety and Health Act and regulations as applicable to their state or territory, together with knowledge of some basic fundamental principles as are incorporated in such works. The topic, ‘the safe use of power tools’ will be assessed on the ability of the student to select, employ and maintain such tools in the manner appropriate for their safe use.
Conditions of assessment	Assessments shall be on the basis of both theory and practice. In the matters of scaffolding and excavation, oral and written questions and answers will apply, together with identification – in the workplace – of the hazards and risks which are often

associated with such aspects of construction.

Assessment of the ‘safe use of tools’ will be on the basis of oral and written questions and answers, together with demonstrations by the students of the correct use of such items.

It is imperative that the student is aware of the statutory obligations, which apply to all persons in the workplace.

Any and all assessments must, at an adjudged appropriate juncture, incorporate an element of such statutory or secondary legislation as applies to the matters dealt with herein.

The assessment may be conducted by those responsible for the training delivery.

7. Learning outcome details

Learning outcome 1

Occupational Safety and Health Act and Regulations

Assessment criteria

1.1 Demonstrate knowledge of the relevant Acts and Regulations in the matter of excavations and earthworks.

1.2 State the statutory duty of care as it affects all of those parties encompassed by Occupational Safety and Health legislation.

Learning outcome 2

Excavations and earthworks

Assessment criteria

2.1 Demonstrate knowledge of the practical application of the Occupational Safety and Health Act and Regulations, as they concern the public, in the matter of open excavations.

2.2 Demonstrate knowledge of factors, which require consideration prior to commencement of excavation.

2.3 Demonstrate an awareness of the type of construction shoring employed in the support of trenches and the like.

2.4 Demonstrate an awareness of the safety factors as associated with the different forms of trench support.

2.5 Demonstrate knowledge of the circumstances/situations which must at all times be avoided

Learning outcome 3

Scaffolding

Assessment criteria

- 3.1 Demonstrate knowledge of the relevant Act and Regulations and AS/NZS 1576.1: 1995 as applying to scaffolding structures.
- 3.2 Demonstrate a knowledge of the loadings which apply to scaffoldings, and the manner of their distribution
- 3.3 Demonstrate knowledge of the differing types of scaffoldings.
- 3.4 Demonstrate an awareness of those factors, which apply to the construction and stability of scaffoldings.
- 3.5 Demonstrate a knowledge of the three categories of working platforms as defined in AS/NZS 1576.1: 1995.
- 3.6 Demonstrate knowledge of those situations/actions, which at all times must be avoided.

Learning outcome 4

The safe use of power tools

Assessment criteria

- 4.1 Demonstrate knowledge of the relevant Act and Regulations as they apply to the use of electricity and electrical installations in the workplace.
- 4.2 List and explain the requirements and recommendations as applying to electrical cords and extensions cords.
- 4.3 Demonstrate knowledge of the safety equipment or clothing, which may be required when using electric powered tools.
- 4.4 Demonstrate knowledge of such conditions or environments as would prohibit the use of electric powered tools.
- 4.5 Demonstrate knowledge of the basic function(s) of electric powered tools.
- 4.6 Demonstrate knowledge and skill in the use of those electric powered tools as are to be used by the student.
- 4.7 Demonstrate knowledge of the safety requirements, which might apply to any electric powered tool or the like.
- 4.8 Demonstrate knowledge of the maintenance requirements as applying to electric powered tools.

8. Delivery of the module

Delivery strategy

Delivery strategy must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective way to achieve this is by the integration of theory and practice where students learn by experimentation and through research and laboratory reports.

It is recommended that learning and assessment be facilitated in a holistic manner, which may require a learning outcome sequence other than that indicated in the module

Recommended resource requirements

Minimum teacher qualifications:

Certificate IV Assessment & Workplace Training

Trade qualifications in the building discipline and a demonstrated high level of competency in building systems safety. This would normally be achieved by relevant workplace experience in this field.

Non human resources:

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

Trade pamphlets.

Trade information documents.

Appropriate texts.

User Guides

Where this module is used in an approved Traineeship or Apprenticeship program students should be advised to obtain, where available, respective EEQSBA¹ *User Guides* (these outline in detail what training and work performance the student is required to undertake for the program).

Textbooks

Wilkie & Arden, Build your own home,
Mitchells, Structure and Fabric Parts 1 and 2

Reference books

Steel reinforcement, Institute of Australia
BHP Duragal

¹ EEQSBA - ElectroComms and EnergyUtilities Qualifications Standards Body of Australia Ltd

**Occupational health
and safety
requirements**

A safe healthy environment should be provided for students and teachers.

Safety procedures concerning building systems should followed with regard to all teaching and learning activities.