

**1. Module details****Module name****Mobile Plant, Tools and Equipment****Module duration**

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 18 – 20 hours.

**Module code**

NUE238

**Discipline code**

0703130

**2. Module purpose**

This module is designed to provide knowledge and skills required by electrical supply industry workers to operate and maintain mobile plant, tools and equipment. The experience gained is in the correct procedures and practices in pre-operational checks and operation of mobile plant and equipment including legal requirements. Elevated Work Platforms, portable hydraulic equipment, portable pneumatic equipment, chain saws and motor vehicles. All procedures and practices comply in accordance with electricity supply industry standards, Supply Authority regulations, government regulations and OH&S regulations.

**3. Prerequisites**

NUE207 Powerline Safety Practices.

**4. Relationship to competency standards**

This module addresses Units 2.9-2.14, 2.17, 2.18, 3.1-3.10, 3.17 and 3.18 of the E.S.I. National Competency Standards for Overhead Line Work and Cable Jointing. and unit 2.1 and 2.3 of the Electrical Contracting Industry Award Standard (Volume 8).

**5. Content****Legislative and safety requirements for plant and equipment****Mobile equipment**

elevating work platforms (safety and electrical, clearances, inspection, operation, maintenance, safety observers, other mobile plant)

**Hydraulic and pneumatic equipment**

operation  
maintenance

**Portable equipment**

operation  
maintenance  
chainsaws (operation and maintenance)

	<p><b>Enterprise vehicles</b>          statutory requirements          trucks          four wheel drives          load securing</p>
<b>6. Assessment strategy</b>	
<b>Assessment methods</b>	<p>Short answer questions (written, oral or graphic or computer based), multiple choice questions, oral questions, observations, assignments, other recognised methods.          Suitable practical exercises which assess the skills required of each learning outcome.</p>
<b>Conditions of assessment</b>	<p>Theory room for written tests together with practical field observation.</p>
<b>7. Learning outcome details</b>	
<b>Learning outcome 1</b>	<p><b>Plan and prepare for the set-up and operation of an elevating work platform.</b></p>
<b>Assessment criteria</b>	<p>1.1 Obtain, analyse and interpret manufacturers instructions, OH&amp;S regulations and other statutory requirements to ensure the set-up and operation of an elevating work platform can be performed in accordance with the prescribed standard.</p> <p>1.2 Prepare EWP for road transport.</p> <p>1.3 Perform EWP pre-operational checks in accordance with the prescribed standard.</p>
<b>Learning outcome 2</b>	<p><b>Set-up, operate and shut down a elevating work platform vehicle.</b></p>
<b>Assessment criteria</b>	<p>2.1 Set-up an elevating work platform vehicle prior to operation.</p> <p>2.2 Operate an elevating work platform.</p> <p>2.3 Shut down an elevating work platform upon completion of task.</p>

**Learning outcome 3**

**Perform emergency procedures necessary for the effective use of EWP's.**

**Assessment criteria**

- 3.1 Escape from an EWP in accordance with approved standards.
- 3.2 Rescue a victim from an EWP.
- 3.3 Operate emergency/mechanical over-ride controls to maneuver EWP in the event of mechanical failure.

**Learning outcome 4**

**Explain and demonstrate safe operating and maintenance procedures for portable hydraulic equipment.**

**Assessment criteria**

- 4.1 Describe the operating principles of a hydraulic system.
- 4.2 Perform routine maintenance procedures for portable hydraulic tools and equipment.
- 4.3 List and demonstrate the emergency shut down procedure for power operated hydraulic tools and equipment.
- 4.4 Demonstrate operating procedures for a range of power and manually hydraulic tools and equipment.

**Learning outcome 5**

**Explain and demonstrate safe operating and maintenance procedures for portable pneumatic equipment.**

**Assessment criteria**

- 5.1 Describe the operating principles for a pneumatic system.
- 5.2 Perform routine and maintenance procedures for portable pneumatic tools and equipment.
- 5.3 List and demonstrate the emergency shut down procedure for power operated hydraulic tools and equipment.
- 5.4 Demonstrate operating procedures for a range of pneumatic tools and equipment.

<b>Learning outcome 6</b>	<b>List the Legal Requirements, Supply Authority Regulations and Standards for the use of motor vehicles.</b>
<b>Assessment criteria</b>	<p>6.1 State the vehicle drivers legal obligations.</p> <p>6.2 State the Supply Authority and Government Regulations and Standards required for the use of:</p> <ul style="list-style-type: none"> <li>- Motor Cars</li> <li>- Light and Heavy Commercial trucks</li> <li>- Heavy truck/trailer combination</li> <li>- Four wheel drive vehicles.</li> </ul> <p>6.3 State the Supply Authority and Government Regulations and Standards required for securing loads prior to transporting.</p>
<b>Learning outcome 7</b>	<b>List the safe work practices and demonstrate safe operation and maintenance procedures for a chainsaw.</b>
<b>Assessment criteria</b>	<p>7.1 Identify the safety requirements and responsibilities for chainsaw operation.</p> <p>7.2 Identify chainsaw components and their ancillary equipment, describe their function and demonstrate efficient maintenance, storage, transporting and starting procedures.</p> <p>7.3 Demonstrate worksite preparation appropriate to the learners work environment.</p> <p>7.4 Demonstrate efficient work practices and procedures for chainsaw operation.</p>
<b>8. Delivery of the module</b>	
<b>Delivery strategy</b>	<p>Delivery strategies must be suitable for both theoretical and/or practical learning and module purpose.</p> <p>It is recommended that learning and assessment be facilitated in a holistic manner which may require a learning sequence other than indicated in the body of this module descriptor.</p>
<b>Resource requirements</b>	<p>Relevant Australian standards</p> <p>Enterprise work manuals and standing instructions, diagrams and layouts</p> <p>Relevant manufacturers' equipment</p> <p>Necessary equipment &amp; tools</p>
<b>Occupational health and safety requirements</b>	<p>Students should be made aware of OH&amp;S issues in all situations and be expected to demonstrate safe working practices at all times. Electrical safety must be emphasised.</p>