

## U30301: Rig and position basic entertainment and events technology equipment

### Unit Descriptor:

This unit deals with the skills and knowledge required to determine rigging requirements for lighting from established plans and preparing and rigging basic Entertainment and Events Technology equipment to meet production requirements.

ELEMENT	PERFORMANCE CRITERIA
<i>To be competent you must achieve the following:</i>	
1. Determine rigging requirements for Entertainment and Events Technology equipment	<p>1.1 <b>Documentation</b> is correctly interpreted and consultations are held with <b>appropriate personnel</b> to confirm requirements.</p> <p>1.2 Equipment and accessories and height requirement are accurately determined and confirmed with <b>appropriate personnel</b>.</p> <p>1.3 Quantity and characteristics of rigging components are determined with regards to total load, accessibility, positioning and safety requirements.</p> <p>1.4 Access, obstructions and other hazards are assessed and appropriate action is taken to remove/reduce risks.</p> <p>1.5 Safety signs and warnings are erected in accordance with industry regulations.</p> <p>1.6 Load dimensions and centre of gravity of load are determined in accordance with slinging requirements.</p> <p>1.7 Appropriate safe working loads for lifting equipment are acquired according to manufacturer's specifications.</p> <p>1.8 Slings, tackle, hoists and accessories are selected according to the needs of lift and safe working capacities of equipment.</p>

- 1.9 Lifting/moving gear is inspected and damaged/worn items are identified, labeled and rejected in accordance with organizational procedures and manufacturer's specifications.
2. Prepare for rigging
  - 2.1 Entertainment and Events Technology equipment is tested and pre-rigged as required in accordance with safety and inspections requirements.
  - 2.2 Components of lighting support are inspected and damaged sections are replaced.
  - 2.3 Components of lighting support are assembled in accordance with manufacturer's specification.
3. Build truss/bars
  - 3.1 Equipment to be rigged is prepared and attached according to requirements.
  - 3.2 Truss/bars are joined in accordance with manufacturer's specifications.
  - 3.3 Anchorage points are identified/located/established in accordance with requirements and equipment according to manufacturer's specifications.
  - 3.4 **Entertainment and Events Technology equipment** is safely slung / connected and packing installed/secured to protect sling and load.
  - 3.5 All power and control cables are strapped and connected to the lighting equipment in accordance with manufacturer's specifications and lighting requirements and national inspection regulations.
  - 3.6 Load is safely raised to working height.
  - 3.7 **Rigging accessories** attached to truss/bar are checked for safety and any adjustment are referred to the **appropriate personnel.**

4. Raise truss/bar and secure and position Entertainment and Events Technology equipment
- 4.1 **Entertainment and Events Technology equipment** is safely raised in accordance with organizational procedures and using appropriate signals.
  - 4.2 Stability of Entertainment and Events Technology equipment is maintained throughout the raising process.
  - 4.3 **Entertainment and Events Technology equipment** is secured and hung in position.
  - 4.4 Equipment, control gear and distribution elements are rigged and installed with due regard to other equipment, participants, public and crew in terms of safety, security of equipment accessibility and quality of operation.
  - 4.5 **Entertainment and Events Technology equipment** is positioned to meet the desired aesthetic and technical requirements of the production.
  - 4.6 Problems are identified and resolved within limits of your authority.
  - 4.7 **Appropriate personnel** are liaised with to confirm that Entertainment and Events Technology installation meets requirements.
  - 4.8 Lifting installation meets manufacturers and safety requirements.
  - 4.9 Lifting equipment that is no longer required is removed.
  - 4.10 Workplace is cleared of non-essential rigging equipment
  - 4.11 The safety of all equipment is checked both during and after installation in accordance with legal requirements.

**RANGE STATEMENT**

*You must cover the items below*

**A. Documentation (at least 3)**

- (i) full equipment schedule
- (ii) power requirements
- (iii) equipment instructions and/or manufacturer's instructions
- (iv) building /venue specifications
- (v) Design/layout

**B. Appropriate personnel (at least 2)**

- (i) colleagues from other specialist areas
- (ii) supervisors, managers
- (iii) artistic and creative personnel, e.g. Entertainment and Events Technology Technicians, designer, director
- (iv) production team

**C. Lighting equipment (at least 2)**

- (i) effects projectors
- (ii) lighting lenses
- (iii) lamps
- (iv) dimmers
- (v) electrical/electronic props
- (vi) special effects
- (vii) controllers

**D. Sound equipment (at least 2)**

- (i) loud speakers
- (ii) DSPs
- (iii) mixing console
- (iv) cable-variety

**E. Rigging and rigging accessories (at least 5)**

- (i) safety chains
- (ii) hook clamps
- (iii) boom arms
- (iv) spigots
- (v) telescopic stands
- (vi) H stands
- (vii) winch-up stands
- (viii) mobile booms
- (ix) T bars
- (x) scaffold clamps
- (xi) truss
- (xii) span sets, slings, shackles
- (xiii) chain blocks/motors and other rigging equipment installed by a licensed rigger

**UNDERPINNING KNOWLEDGE AND SKILLS**

1. Safety regulations that affect the installation of Entertainment and Events Technology equipment and working with power, including occupational health and safety legislation.
2. The different types of hardware used for Entertainment and Events Technology installation, e.g. screws, nuts, bolts.
3. The types of Entertainment and Events Technology systems accessories available in the marketplace and their relevance to different types of production areas.
4. Techniques for rigging and hanging Entertainment and Events Technology equipment within licensing requirements.
5. The format of a technical plan and the meaning of its different components, including an understanding of scale, position and orientation.
6. The general scope and potential of Entertainment and Events Technology operations within different live production contexts, e.g. theatre, concert, corporate.
7. The relationship between technical and performance areas, including audio, vision systems and performance.
8. Typical roles and responsibilities of the various technicians in different context.

9. Specialized terminology that applies to Entertainment and Events Technology operations.
10. Rigging gear and equipment.
11. Design and function of lifting gear.
12. Safe working loads and how they are calculated.
13. Applying a range of rigging techniques as applied to specific equipment used in the workplace.
14. Appropriate personal protective equipment.
15. Colour coding recognition.
16. Industry regulations and standards.
17. Relevant organisation policies and procedures.
18. Read and interpret technical information.
19. Plan and organise work.
20. Solve problems and conduct tests and interpret faults.
21. Select and rig equipment
22. Communicate effectively including use of signaling.
23. Accurately carry out all required recording, reporting and documentation activities.
24. Work safely.
25. Organizational procedures with regard to rigging.
26. Using hand and power tools.
27. Knowledge of effective communication techniques including active listening, questioning and non-verbal communication.

**EVIDENCE GUIDE****(1) Critical Aspect of Evidence**

You must provide evidence that shows you have done this over a sufficient period of time for your assessor to consider that you are competent. You have to prove that you can meet all of the performance criteria on at least two (2) occasions. This evidence must come from working in Entertainment and Events Technology.

It is essential that competence be observed in the following aspects:

- i. demonstrate knowledge of the rigging and entertainment and events technology operations, equipment and the range of applications
- ii. determine work requirements and plan and organise work to fulfill such requirements
- iii. identify, select and use tools, equipment and material to complete tasks to specifications
- iv. recognition of rigging and Entertainment and Events Technology equipment and accessories, including key features and purpose
- v. set up and operate use of industry-current rigging and Entertainment and Events Technology equipment and accessories safely
- vi. ability to apply a range of technical lighting knowledge and manual techniques to the rigging of Entertainment and Event Technology equipment so that the Entertainment and Events Technology set up meets the production and safety requirements
- vii. handle material and equipment safely
- viii. problems are identified promptly and resolved within the limits of your authority
- ix. completion of Entertainment and Events Technology -related tasks in accordance with health and safety procedures
- x. perform testing and quality checks
- xi. completion of tasks within typical workplace time constraints
- xii. practical demonstration of skills through the rigging, installation and testing of Entertainment and Events Technology equipment for an actual production
- xiii. interpret and apply technical information to work activities
- xiv. involvement of and interaction with a team to reflect the collaborative nature of the technical production process
- xv. compliance with relevant Occupational Health and Safety requirements and industry standards and operating procedures
- xvi. perform all task in accordance with standards operating procedures, quality requirements and enterprise policies and procedures

**(2) Method of Assessment**

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- direct observation of the candidate rigging and positioning Entertainment and Events Technology equipment
- inspection of Entertainment and Events Technology equipment set up by the candidate to assess workability and safety issues
- oral or written questioning to assess knowledge of the operations involved in rigging and positioning of Entertainment and Events Technology equipment
- review of portfolios of evidence and third party workplace reports of on-the-job performance by candidate

Assessment methods should closely reflect workplace demands and the needs of particular groups (e.g. people with disabilities, and people who may have literacy or numeracy difficulties).

**(3) Context of Assessment**

Assessment may take place on the job, off the job or a combination of both of these. However assessment of this unit would most effectively be undertaken on the job due to specific workplace environment requirements. Off the job assessment must be undertaken in a closely simulated workplace environment.