

FABRICATE PRODUCTS AND STRUCTURES

UNIT CODE: ENG/OS/WEF/CR/11/6/A

UNIT DESCRIPTION

This unit specifies competencies required for laying out components and producing components and products

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA <i>(Bold and italicized terms are elaborated in the Range)</i>
1. Lay out component	1.1 Safety and health is observed as per Workplace procedures and OSHA 1.2 Selected materials, tools and equipment as per job specifications 1.3 Measured and marked out components as per job specifications
2. Produce components and products	2.1 Cut work profiles in accordance with working drawings 2.2 Worked profiles to size as per working drawings 2.3 Component is fabricated as per job specifications 2.4 Finishing processes are selected as per job specifications 2.5 Finishing processes are applied as per job specifications 2.6 Product is inspected as per standard operating procedures

RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variable	Range
1. Materials may include but is not limited to:	<ul style="list-style-type: none"> • Metal tubing • Metal sheets • Metal plates • Metal bars

Variable	Range
2. Tools and Equipment may include but is not limited to:	<ul style="list-style-type: none"> • Hand tools • Powered hand tools • Power saws
3. Finishing processes may include but is not limited to:	<ul style="list-style-type: none"> • Deburring • Polishing • Painting • Varnishing • Oil blackening • Bluing • Buffing • Electroplating • Enamelling

Required Knowledge

The individual needs to demonstrate knowledge of:

- Material composition and properties
- Types and use of:
 - marking out tools
 - measuring and checking tools
 - cutting tools and equipment
 - Forming tools
 - Finishing tools
- Finishing processes

Required Skills

The individual needs to demonstrate the following skills:

- Selecting materials and tools
- Testing materials
- Cutting and sizing the workpieces
- Applying finishing processes

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Observed safety procedures as per Workplace procedures and OSHA 1.2 Selected materials, tools and equipment as per job specifications 1.3 Tested materials as per job specifications 1.4 Measured and marked out workpieces 1.5 Sized workpieces as per job specifications 1.6 Assembled the workpieces to produce the products 1.7 Applied finishing processes as per job specifications 1.8 Applied housekeeping as per workplace procedures
2. Resource implications	<p><i>The following resources must be provided:</i></p> <ul style="list-style-type: none"> 2.1 Fabrication workplace meeting OSHA standards 2.2 Tools and equipment relevant to the tasks
3. Methods of assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Observation 3.2 Oral questioning 3.3 Written tests 3.4 Projects
4. Context of assessment	<p>Candidate will be assessed</p> <ul style="list-style-type: none"> 4.1 On job 4.2 Off job 4.3 During industrial attachment 4.4
5. Guidance information for assessment.	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>