Title: Electrical/electronic detail drafting  
Unit Code: MEM9.4BA

Industry Points: 8  
Field / Band: Specialisation Band A/ Drawing, Drafting & Design

HSC Indicative Hours: 80

Resources that may be used in training and assessment for this unit include:

- Curriculum Corporation Project – Developing Learning Strategies for Training Packages for VET in Schools – Metal and Engineering Training Package
- TAFE NSW Module
- National Module EPC193 Electrical Engineering Drawing, ND24 Drafting - Electrical Building Services, ND25 Drafting - Electronics Systems
- Occupational Health and Safety legislation
- Materials developed by Registered Training Organisations
- Learner Guide
- Various commercially produced materials including textbooks and computer tutorials

Training Package Pre-requisites

- MEM9.2AA Interpret Technical Drawing
- MEM9.3AA Prepare Basic Engineering Drawing
<table>
<thead>
<tr>
<th>Element of Competency</th>
<th>9.4A.1 Prepare/make changes to electrical/electronic schematics and drawings</th>
<th>Assessor Guide</th>
<th>HSC Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Criteria</td>
<td>To observe that</td>
<td>To confirm that</td>
<td>Learning experiences for the HSC must draw upon the range statement.</td>
</tr>
<tr>
<td>9.4A.1.1</td>
<td>The electrical/electronic schematic is drawn correctly and indicates the relative position of the components</td>
<td>The relative position of the electrical/electronic components can be identified</td>
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<tr>
<td>9.4A.1.2</td>
<td>The electrical/electronic drawings produced include all relevant specifications</td>
<td>The specifications of all components can be identified</td>
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<td>9.4A.1.3</td>
<td>Electrical/electronic schematics/drawings are produced in conformance with AS1102 or equivalent</td>
<td>The requirements of AS1102 or equivalent with respect to electrical/electronic schematics/drawings can be identified</td>
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<tr>
<td>Element of Competency</td>
<td>9.4B.2 Determine component and/or material requirement</td>
<td>Assessor Guide</td>
<td>HSC Requirements</td>
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<tr>
<td><strong>Performance Criteria</strong></td>
<td><strong>To observe that</strong></td>
<td><strong>To confirm that</strong></td>
<td></td>
</tr>
<tr>
<td>9.4A.2.1 Components and/or materials are selected from supplier/manufacturer’s catalogues using design specifications</td>
<td>The circuit/component specifications are obtained in accordance with work place procedures</td>
<td>The design specifications of the circuit/components can be identified</td>
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<tr>
<td>Range Statement</td>
<td>This unit applies to the production of drawings produced under supervision, in accordance with instructions and specifications to Australian Standard 1102 or equivalent using predetermined design specifications. Drawings include plans, schematics, layouts, circuit diagrams and charts. This unit applies to all electrical/electronic areas. Manual drafting or drawing equipment is used or where a CAD system is used, Unit 9.9B (Create 2D drawings using computer aided design system) and/or Unit 9.10B (Create 3D models using computer aided design system) should also be considered.</td>
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<td>Evidence Guide</td>
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<td><strong>1. Assessment context</strong></td>
<td>This unit may be assessed on the job, off the job or a combination of both on and off the job. The competencies covered by this unit would be demonstrated by an individual working alone, or as part of a team. The assessment environment should not disadvantage the candidate.</td>
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</table>
| **2. Assessment conditions** | The candidate will be provided with:  
- All tools, equipment, materials and documentation required.  
- The candidate will be permitted to refer to the following documents:  
  - Any relevant workplace procedures.  
  - Any relevant product and manufacturing specifications  
  - Any relevant codes, standards, manuals and reference materials.  
The candidate will be required to:  
- Orally, or by other methods of communication, answer questions put by the assessor.  
- Identify colleagues who can be approached for the collection of competency evidence where appropriate.  
- Present evidence of credit for any off-job training related to this unit.  
Assessors must be satisfied that the candidate can completely and consistently perform all elements of the unit as specified by the criteria, including required knowledge. |
| **3. Critical aspects** | This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the computations being performed or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied. |
| **4. Special notes** | During assessment the individual will:  
- Demonstrate safe working practices at all times;  
- Communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment  
- Take responsibility for the quality of their own work;  
- Plan tasks in all situations and review task requirements as appropriate;  
- Perform all tasks in accordance with standard operating procedures;  
- Perform all tasks to specification;  
- Use accepted engineering techniques, practices, processes and workplace procedures.  
Tasks involved will be completed within reasonable timeframes relating to typical workplace activities. |