

**Specification of Competency Standards**  
**for the Manufacturing Technology Industry**  
**Unit of Competency**

Functional Area - Product Manufacturing

|                     |  |
|---------------------|--|
| Title               | Line balancing   |
| Code                | 106501L4   |
| Range               | This unit of competency is applicable to the corporations of the Manufacturing Technology Industry. Practitioners should be capable to analyse the production line carefully, formulate working standards and carry out line balancing   |
| Level               | 4  |
| Credit              | 6 (For Reference Only)   |
| Competency          | <p>Performance Requirements</p> <p>1. Understand relevant knowledge of line balancing</p> <ul style="list-style-type: none"> <li>• Understand the product engineering</li> <li>• Understand the principle and calculationline method of line balancing</li> <li>• Understand all kinds of analysis tools of line balancing, such as Method Study, Motion Study and Time Study</li> <li>• Understand Ergonomics</li> </ul> <p>2. Line balancing</p> <ul style="list-style-type: none"> <li>• Through operation research or other research methods, analyse existing production arrangements and make recommendations for improvement</li> <li>• Through Time Study, collect all kinds of important data of production line and develop work standards, such as standard working hours, standard manpower and standard production rate</li> <li>• Through Motion Study, conduct a detailed analysis of the production motion from Therbligs, seek room for further improvement</li> <li>• Analyse the production takt Time of production line, coordinate with production requirements and targeted line balancing, and formulate product production plan</li> <li>• Propose improvements to management on production equipment and configuration</li> <li>• Suggest improvements on the production parts or tools</li> </ul> <p>3. Professional handling of line balancing</p> <ul style="list-style-type: none"> <li>• Carefully consider elements of safety, risk, capacity, quality, environmental protection and cost etc, carry out line balancing and also meet all aspects of requirements at the same time</li> </ul> |
| Assessment Criteria | <p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>• Capable to apply all kinds of analytical tools, through Method Study, Motion Study and Time Study, optimise and balance the production line, increase production efficiency</li> </ul>   |
| Remark              |  |