## Unit of Competency

### Functional Area: Manufacturing

| | |
|---|---|
| Title | Master the Application of Computer-aided Design/Manufacturing/Engineering |
| Code | 104824L3 |
| Range | This unit of competency (UoC) is applicable in the production department of timepiece manufacturing companies. It covers the abilities to use computer-aided system in designing timepiece components, such as dial, case and band, except watch movement; and set the computerized numerical control (CNC) programme to manufacture the timepiece components. |
| Level | 3 |
| Credit | 9 (for reference only) |
| Competency | Performance Requirements<br>1. Understand computer-aided design/manufacturing/engineering process<br>• Understand the operation and functions of computer-aided design/manufacturing/engineering software<br>• Understand the process from computer drawing of timepiece components to the output of products<br>• Understand the production and handling of timepiece components<br>• Understand the preparation of engineering drawing<br>• Understand output file with numerical control machining and engineering analysis<br>2. Apply computer-aided design/manufacturing/engineering<br>• Master the structural diagram of timepiece components and the operation and functions of computer-aided design software<br>• Apply computer-aided software in drawing simple timepiece component design<br>• Use computer-aided software to build solid models<br>• Use engineering drawing to aid the manufacturing of timepiece components<br>• Use the design file data output to manage the numerical control machining and engineering analysis<br>3. Exhibit professionalism<br>• Manufacture the timepiece components according to the safety guidelines and code of practice of the Occupational Safety and Health Ordinance |
| Assessment Criteria | The integrated outcome requirements of this UoC are the abilities to:<br>• Use computer-aided software to design timepiece components, such as dial, case and band; and<br>• Use design file and data output to set the numerical control machining programme for timepiece components and carry out engineering analysis. |
| Remark | |