

Specification of Competency Standards of the Watch & Clock Industry

Unit of Competency

Functional Area: Design

Title	Apply 3-dimensional Modelling Applications to Timepiece Design
Code	104852L4
Range	This unit of competency (UoC) is applicable in the design department of timepiece companies. It covers the abilities to use 3-dimensional modelling applications to design timepieces; simulate the real image of a complete watch, and provide data to support or assist the production.
Level	4
Credit	6 (for reference only)
Competency	Performance Requirements 1. Understand various 3-dimensional modelling applications • Understand the uses, types and characteristics of 3-dimensional modelling applications 2. Apply 3-dimensional modelling applications to timepiece design • Master 3-dimensional modelling applications, including: • File creation for parts, assembly, etc. • Select drawing plane • Draw plane sketch • Edit plane sketch • Add/delete relation • Use plan • Use axis and coordinates • Build solid models • Build features, such as: base, cut, pierce, shaping, etc. • Operate features, such as: fillet, chamfer, mirror, pattern, etc. • Advanced 3-D model building • Combine solid and surface • Apply measurement and section properties • Use assembly parts • Produce engineering drawings • Output physical simulation pictures and fragments of engineering structures • Manage or assist in file output with numerical control machining, rapid prototyping and engineering analysis • Mould design • Two-part mould • Four-part mould 3. Exhibit professionalism • Respect intellectual property to prevent plagiarization, so as to avoid individual person and the organization to fall into the trap of infringement
Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: • Use 3-dimensional modelling applications to carry out timepiece product design; and • Simulate the real image of a complete watch and fragments of engineering structures to provide data in order to manage or assist in the production of timepiece products.
Remark	