Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Design

Title	Apply CAD software in the design of relatively complex jewellery
Code	108890L4
Range	This unit of competency is applicable to designers working in the jewellery design department of the jewellery industry. Practitioners should be capable of making careful analysis and judgment. They should also be able to apply computer-aided design (CAD) software to design relatively complex jewellery independently, such as complex necklace design and rings, and interface with a variety of numerical control machining and rapid prototyping technology.
Level	4
Credit	3
Competency	Performance Requirements 1. Know about CAD software • Master the concepts of applying CAD software to design relatively complex jewellery drawings • Know about the differences between 2-D and 3-D CAD drawings, and their conversion factors and display effects • Master different interfaces and the conversion of files, such as Initial Graphics Exchange Specification (IGES) and STereoLithography (STL) 2. Employ CAD technology • Employ CAD technology to design the patterns and produce demonstration drawings of relatively complex jewellery, such as complex necklace design and rings • Employ the conversion between 2-D and 3-D designs • Use different interfaces and file processing to output and convert files for different numerical control machining or rapid prototype making • Know about how the output files of numerical control machining and rapid prototyping work with different types of 3-D printing technology and 3-D printer models 3. Professionalism • Respect intellectual property and avoid plagiarism, preventing individuals and the organization from falling into the trap of infringement of intellectual property rights
Assessment Criteria	The integrated outcome requirements of this unit of competency are: • Able to correctly apply CAD techniques to design relatively complex jewellery, such as making the jewellery set, analyzing the structure of the design and studying the production feasibility; and • Use different interfaces, such as IGES, to convert between 2-D and 3-D designs, as well as master the conversion and output of different files to match with various kinds of numerical control machining and rapid prototype making.
Remark	