Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Design

Title	Employ CAD techniques in the design of relatively simple jewellery
Code	108882L3
Range	This unit of competency is applicable to practitioners working in the jewellery design department of the jewellery industry. Practitioners should be capable of designing relatively simple jewellery patterns with the aid of computer software related to jewellery design.
Level	3
Credit	3
Competency	Performance Requirements 1. Understand the workflow of computer-aided design (CAD) • Understand the workflow of CAD, and master the drawing of sketches and its application • Know how to use the parametric method in solid drawing • Know how to produce and handle the components of jewellery • Know how to prepare engineering drawings • Understand the photo-realistic images produced by relevant software • Understand the output files of numerical control machining, rapid prototyping and engineering analysis 2. Apply CAD • Use CAD software to design relatively simple jewellery patterns • Draw the necessary parts according to the characteristics of the jewellery design • Build solid models with the aid of curved surfaces • Use different components necessary for designing various kinds of jewellery • Use engineering drawings to facilitate jewellery manufacturing • Use virtual reality, augmented reality and mixed reality to present the finished drawings and use photo-realistic images to facilitate communication • Know about the application of the latest 3-D printing technology and demonstrate the effects • Use data from output files to work with numerical control machining • Use rapid prototypes and engineering analysis to facilitate jewellery manufacturing 3. Professionalism • Respect intellectual property and avoid plagiarism when designing jewellery, 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 apply computer software to facilitate the design of relatively simple jewellery, such as rings, earrings and pendants; and • Produce and output computerized model drawings, and apply such knowledge in jewellery manufacturing and present the drawings.
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