

**Specification of Competency Standards**  
**for the Jewellery Industry**  
**Unit of Competency**

Functional Area - Design

Title	Know about computer-aided design software for jewellery products
Code	108877L2
Range	This unit of competency is applicable to practitioners working in the jewellery design department of the jewellery industry. Practitioners should be capable of working in a familiar environment under supervision. They should be able to apply computer-aided software to design jewellery products.
Level	2
Credit	3
Competency	<p>Performance Requirements</p> <p>1. Understand the principles of computer drawing</p> <ul style="list-style-type: none"> <li>• Know about various computer drawing principles, such as: <ul style="list-style-type: none"> <li>○ Bitmap graphics and vector graphics in 2-D design</li> <li>○ Differences between surface design, mesh design and solid design in 3-D design</li> </ul> </li> <li>• Know about various computer drawing tools and their applications, such as: <ul style="list-style-type: none"> <li>○ Pen tools</li> <li>○ Morphing</li> <li>○ Path management</li> <li>○ Copy and paste</li> </ul> </li> <li>• Know about the photo-realistic images produced by software, such as: <ul style="list-style-type: none"> <li>○ Virtual reality</li> <li>○ Augmented reality</li> <li>○ Mixed reality</li> </ul> </li> <li>• Know about different types of output files and manage the output files with numerical control machining and rapid prototyping</li> </ul> <p>2. Apply computer-aided software in the design of jewellery</p> <ul style="list-style-type: none"> <li>• Effectively apply and operate various computer graphics design software to draw, build and modify 2-D lines and graphics</li> <li>• Effectively apply and operate various computer graphics design software to draw, build and modify 3-D wireframe models, surface models and solid models</li> <li>• Know about the image effect of virtual reality photos produced by computer software to produce virtual reality photos and images under instruction</li> <li>• Know about different types of output files and manage them under instruction</li> </ul> <p>3. Professionalism</p> <ul style="list-style-type: none"> <li>• Ensure that all content and data are accurate when performing 2-D computer graphics design, 3-D surface model design, solid simulation and parameter design</li> <li>• Respect intellectual property and avoid plagiarism when assisting in jewellery design duties, preventing individuals and the organization from falling into the trap of infringement of intellectual property rights</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>• Able to know about the principles of applying computer-aided software in the design of jewellery; and</li> <li>• Assist in designing and drawing the basic external appearance of jewellery, producing virtual reality photos, and managing file output under instruction.</li> </ul>

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