

Specification of Competency Standards for the Jewellery Industry
Unit of Competency

1. Title	Know about the application of rapid prototyping technique for jewellery	
2. Code	JLZZRD302A	
3. Range	This unit of competency is applicable in Computer-to-plate Department. Practitioners should be capable to use computer-aided 3-D design software to draw computerized design of jewellery and can make rapid prototypes by using rapid prototyping machine.	
4. Level	3	
5. Credit	6	
6. Competency		<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Understand the rapid prototyping theory</p> <ul style="list-style-type: none"> ◆ Know about the theory of rapid prototyping technique for jewellery <ul style="list-style-type: none"> • Sterolithography Apparatus (SLA) • 3-D Ink-Jet Printing (3DP) • Digital Light Processing (DLP) ◆ Know about the precision and format requirement for the files of rapid prototyping machine, including: STL, SLC, DXF and JSD <p>6.2 Operate rapid prototyping machine</p> <ul style="list-style-type: none"> ◆ Master the operational requirement of prototyping machine ◆ Adjust the precision, density and stratified distance of 3-D design, etc. ◆ Conduct routine maintenance and inspection on the prototyping machine and replace the materials consumed ◆ Know how to control the environmental conditions during the manufacturing process ◆ Handle the post-processing treatment after prototyping

7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Capable to master the data processing of rapid prototypes; and (ii) Capable to operate the rapid prototyping machine and perform routine inspection and maintenance duties.
8. Remarks	The credit value of this unit of competency is set on the presumption that the person concerned already possesses the knowledge of applying CAD/CAM technologies in jewellery manufacturing.