

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Production

Title	Master the techniques for cutting/polishing semi-precious gemstones (coloured gemstones)
Code	108943L2
Range	This unit of competency is applicable to practitioners working in the semi-precious gemstone (coloured gemstone) cutting/polishing department of jewellery manufacturing organizations. Practitioners should be capable of mastering the operation of various relevant tools and equipment, and applying basic techniques for cutting/polishing basic semi-precious gemstones (coloured gemstones) under instruction.
Level	2
Credit	6
Competency	<p>Performance Requirements</p> <p>1. Know about the operation of basic tools/equipment for cutting/polishing semi-precious gemstones/coloured gemstones and the relevant occupational safety</p> <ul style="list-style-type: none"> • Know about the basic physical properties of semi-precious gemstones/coloured gemstones • Know about the basic cuts of semi-precious gemstones/coloured gemstones, including: <ul style="list-style-type: none"> ○ Cabochon/flat: round, heart-shaped, oval, teardrop-shaped, equilateral triangle/trilliant, olive-shaped, square/baguette, etc. ○ Bead: round bead, oval bead, square/baguette bead, barrel-shaped bead, tube bead, triangular prism bead, etc. ○ Irregular shapes • Know about the industrial safety of cutting/polishing semi-precious gemstones/coloured gemstones • Know about the protection of the respiratory system • Know about the causes and prevention of silicosis • Pay attention to potential hazards in the work processes and working environment • Formulate and list the safety regulations appropriately and clearly • Know about the functions, operation and safe operation of the tools/equipment for cutting/polishing semi-precious gemstones/coloured gemstones, including: <ul style="list-style-type: none"> ○ Gemstone cutting machine (slices) ○ Small cutting machine (granules) ○ Grinder ○ Flexible shaft machine/grinding file for polishing motifs ○ Sander ○ Vibratory polishing machine/Tumbler ○ Water mill bead setting machine ○ Bead polishing machine ○ Bead chain polishing machine ○ Ultrasonic drilling machine • Know about the procedures for cutting/polishing semi-precious gemstones/coloured gemstones, including: <ul style="list-style-type: none"> ○ Sawing ○ Granulating ○ Grinding ○ Lapping ○ Polishing ○ Waxing ○ Drilling

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Production

	<p>2. Master the techniques for cutting/polishing semi-precious gemstones/coloured gemstones</p> <ul style="list-style-type: none"> • Master the use of basic equipment for cutting/polishing semi-precious gemstones/coloured gemstones • Master various surface polishing methods and the application of surface polishing materials, including: <ul style="list-style-type: none"> ○ Sanding ○ Polishing ○ Tumbling ○ Vibratory polishing • Master the procedures for cutting/polishing semi-precious gemstones (coloured gemstones) <p>3. Professionalism</p> <ul style="list-style-type: none"> • Following the requirements of the organization, code of practice and safety guidelines, cut/polish semi-precious gemstones/coloured gemstones by using various relevant tools and equipment properly and safely with a professional attitude
Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> • Able to use various gemstone cutting/polishing tools and equipment safely, and master basic techniques for cutting/polishing basic semi-precious gemstones/coloured gemstones under instruction.
Remark	<p>This unit of competency is written with reference to the 21st Century Higher Education Jewelry Professional Planning Material Gem Processing Techniques (21世紀高等教育珠寶首飾類專業規劃教材《寶石加工工藝學》) by China University of Geosciences Press Co. Ltd.</p>