

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

Functional Area - Production □

Title	Master the techniques for carving jade (nephrite/jadeite/Fei Cui)
Code	108956L3
Range	This unit of competency is applicable to practitioners working as a jade craftsman. Practitioners should be capable of making aesthetic judgments. They should be able to use various jade carving tools and equipment safely to design and process carved jade according to the instructions of the organization or the orders of the customers.
Level	3
Credit	6
Competency	<p>Performance Requirements</p> <p>1. Know about jade carving</p> <ul style="list-style-type: none"> <li>• Know about the physical properties of jade</li> <li>• Know about jade carving, including: <ul style="list-style-type: none"> <li>○ Art styles <ul style="list-style-type: none"> <li>▪ Craftsmanship</li> <li>▪ Materials used</li> <li>▪ Realistic art design</li> </ul> </li> <li>○ Schools of jade carving <ul style="list-style-type: none"> <li>▪ Beijing School of jade carving</li> <li>▪ Shanghai School of jade carving</li> <li>▪ Yangzhou School of jade carving</li> <li>▪ Lingnan School of jade carving</li> </ul> </li> </ul> </li> <li>• Know about the categorization of jade carving techniques, including: <ul style="list-style-type: none"> <li>○ Embossing <ul style="list-style-type: none"> <li>▪ High/mid-/bas-relief</li> <li>▪ Hollow relief</li> <li>▪ Thin relief</li> </ul> </li> <li>○ Diaglyph <ul style="list-style-type: none"> <li>▪ Line engraving</li> <li>▪ Groove</li> <li>▪ Carving into the surface to make grooves in two parallel lines</li> <li>▪ Grinding the surface of jade so that the designed patterns protrude from the jade</li> <li>▪ Inner engraving</li> </ul> </li> <li>○ Round carving</li> <li>○ Hollow carving</li> <li>○ Chain carving</li> <li>○ Making use of the natural colours of jade to carve out desirable patterns</li> </ul> </li> <li>• Know about the categorization of jade carving themes, including: <ul style="list-style-type: none"> <li>○ Jade utensils</li> <li>○ Jade characters</li> <li>○ Jade flowers and birds</li> <li>○ Jade animals</li> </ul> </li> <li>• Understand the functions, operation and safe operation of jade carving tools/equipment, including: <ul style="list-style-type: none"> <li>○ Cutting equipment <ul style="list-style-type: none"> <li>▪ Jade cutting machine (slices)</li> <li>▪ Small cutting machine (granules)</li> </ul> </li> <li>○ Polishing equipment</li> </ul> </li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Horizontal axis jade carving machine</li> <li>▪ Multi-function hand jade carving machine/grinding file</li> <li>▪ Flexible shaft machine/grinding file for polishing motifs</li> <li>• Know about the new technical knowledge related to jade carving, such as: <ul style="list-style-type: none"> <li>○ Ultrasonic jade carving machine</li> <li>○ CNC (computer numerical control) laser cutting machine</li> <li>○ CNC milling machine</li> </ul> </li> <li>• Know about the industrial safety of jade carving, such as the causes and prevention of silicosis</li> </ul> <p>2. Master jade carving techniques</p> <ul style="list-style-type: none"> <li>• Master the use of jade carving tools/equipment</li> <li>• Master the application of various grinding and polishing materials</li> <li>• Master the jade carving procedures and techniques <ul style="list-style-type: none"> <li>○ Jade assessment <ul style="list-style-type: none"> <li>▪ Learning about the jade and evaluate its price</li> <li>▪ Assessing the features and flaws of the jade and determining how to remove/conceal the flaws before carving.</li> </ul> </li> <li>○ Design <ul style="list-style-type: none"> <li>▪ Theme design</li> <li>▪ Appearance design</li> <li>▪ Composition</li> <li>▪ Colour design</li> <li>▪ Excellent use of materials</li> <li>▪ Modifying at the right time</li> <li>▪ Recovering the waste</li> </ul> </li> <li>○ Polishing techniques <ul style="list-style-type: none"> <li>▪ Rough design</li> <li>▪ Material cutting</li> <li>▪ Modifying the design</li> <li>▪ Working on the rough stone <ul style="list-style-type: none"> <li>▪ Carving</li> <li>▪ Cutting</li> <li>▪ Hooking out</li> <li>▪ Scooping out</li> <li>▪ Engraving</li> <li>▪ Grinding the critical parts roughly</li> <li>▪ Grinding a large surface area</li> <li>▪ Deep grinding to enhance the finess</li> <li>▪ Drilling</li> </ul> </li> <li>▪ Fine design</li> <li>▪ Fine processes <ul style="list-style-type: none"> <li>▪ Scribing the fine part of designs/patterns</li> <li>▪ Tucking in</li> <li>▪ Removing</li> <li>▪ Excavating several layers inside and outside the jade</li> <li>▪ Rubbing down</li> <li>▪ Trimming off</li> </ul> </li> </ul> </li> <li>○ Polishing techniques <ul style="list-style-type: none"> <li>▪ Grinding for smoothness</li> <li>▪ Rubbing for shine</li> </ul> </li> <li>○ Post-processing</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>▪ Cleaning</li> <li>▪ Waxing or oiling</li> <li>▪ Wiping</li> <li>○ Decoration processes <ul style="list-style-type: none"> <li>▪ Producing a base</li> <li>▪ Giving the jade a matching box</li> <li>▪ Embellishment</li> </ul> </li> <li>• Master how to create a unique style</li> </ul> <p>3. Professionalism</p> <ul style="list-style-type: none"> <li>• Following the requirements of the organization, code of practice and safety guidelines, carve jade with the proper and safe use of various faceting/polishing tools and equipment with a professional attitude</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 use various jade carving tools and equipment safely to carve and polish jade materials according to the instructions of the organization or the orders of the customers, including motifs and ornaments; and</li> <li>• Take into account the quality, texture, and optical and physical properties of stone materials to meet the requirements of the 3-D designs.</li> </ul>
Remark	<p>This unit of competency is written with reference to the Higher Education Gems and Materials Processing Techniques Series Teaching Materials - Jade Carving Design and Processing (高等學校寶石及材料工藝學系列教材-玉雕造型設計與加工) by China University of Geosciences Press Co Ltd</p>