

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Production

Title	Master wax setting and casting techniques for jewellery products
Code	108925L2
Range	This unit of competency is applicable to practitioners working in the jewellery casting department of jewellery manufacturing organizations. Practitioners should be capable of mastering the techniques of setting gemstones on wax models before casting. They should also be able to duplicate various kinds of jewellery castings by following the workflow of lost wax casting and operating relevant equipment, so as to meet the production workflow.
Level	2
Credit	3
Competency	<p>Performance Requirements</p> <p>1. Know about wax setting and casting techniques</p> <ul style="list-style-type: none"> • Know about the advantages of wax setting and casting techniques <ul style="list-style-type: none"> ○ Save time and increase productivity ○ Reduce labour costs ○ Reduce loss of metal ○ Only simple tools are required for wax setting, so as to reduce the use of other tools and thus reduce costs ○ The design can be reinvented as some jewellery design can only be created through wax setting • Know about the tools and equipment required for wax setting <ul style="list-style-type: none"> ○ Gemstone measuring tools ○ Wax head stone setter tools ○ Stone setting machine with temperature control ○ Vacuum thermal micro wax setting machine • Know about the process of wax setting and casting <ul style="list-style-type: none"> ○ Wax model making ○ Gemstone setting preparation <ul style="list-style-type: none"> ▪ Inspect the gemstones/wax models ▪ Place the gemstones ▪ Create notches ▪ Position ○ Setting the stones ○ Wax mould trimming ○ Investing ○ De-waxing and burnout process ○ Casting ○ Mould cooling and removal • Know about the requirements on gemstones/jewellery alloys for wax setting and casting • Know about common problems and solutions in wax setting and casting <p>2. Master wax setting techniques</p> <ul style="list-style-type: none"> • Master the tools/equipment required for basic wax setting • Master wax setting techniques, such as for: <ul style="list-style-type: none"> ○ Prong setting ○ Grain setting ○ Pavé setting ○ Channel setting ○ Bar setting

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Production

	<ul style="list-style-type: none"> • Master jewellery casting techniques to perform wax setting and casting • Master the solutions to common problems in wax setting and casting <p>3. Professionalism</p> <ul style="list-style-type: none"> • Following the requirements of the organization, code of practice and safety guidelines, carry out wax setting and casting with a professional attitude
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Able to master major wax setting techniques, such as for prong setting, pavé setting, channel setting and bar setting; and • Duplicate various kinds of jewellery castings by following the workflow of lost wax casting and operating relevant equipment, so as to meet the production workflow.
Remark	