

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Testing and Certification

Title	Identify and grade diamonds
Code	109016L5
Range	This unit of competency is applicable to gemmologists working in gemmological laboratories in the jewellery industry. Practitioners should be capable of conducting analysis, judgment and assessment. They should have a wide range of knowledge of diamonds and expertise in diamond identification, and be able to use professional precision identification equipment to obtain and master detailed and accurate data and information, so as to effectively and independently perform diamond identification work to identify and grade diamonds after careful analysis.
Level	5
Credit	6
Competency	<p>Performance Requirements</p> <p>1. Analyze the categories and characteristics of diamonds</p> <ul style="list-style-type: none"> • Analyze the categories and characteristics of diamonds, including: <ul style="list-style-type: none"> ○ Conditions for diamond formation ○ The origin of diamonds and their formation mechanism ○ Distinction between natural diamonds, synthetic gem-quality diamonds and diamond simulants ○ Treated diamonds and their characteristics • Master the development and modern trends of diamond cuts • Master the 4C grading standard • Master the trend of the diamond market <p>2. Identify and grade diamonds</p> <ul style="list-style-type: none"> • Operate precision diamond identification equipment to perform diamond identification and grading duties effectively in accordance with the "Standard Methods for Testing Diamond for Hong Kong" developed by the Gemological Association of Hong Kong, including: <ul style="list-style-type: none"> ○ Authenticity identification ○ Measurement of weight ○ Colour grading ○ Testing for fluorescence ○ Clarity grading ○ Shape and cutting style ○ Proportion and finish grading ○ Cut grading • Master the functions of diamond testing equipment • Use relevant gemstone testing equipment to test gemstones properly <ul style="list-style-type: none"> ○ Fourier-transform infrared spectrometer ○ DiamondSure™ (Diamond spectrometer) ○ Diamond illuminator ○ Diamond screening device ○ Raman spectrometer ○ Synthetic diamond testing device • Assess and grade diamonds effectively and accurately according to the international and national diamond grading standards <ul style="list-style-type: none"> ○ Diamond 4Cs <ul style="list-style-type: none"> ▪ Carat weight

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	<ul style="list-style-type: none"> ▪ Colour grade ▪ Clarity grade ▪ Cut grade <p>3. Professionalism</p> <ul style="list-style-type: none"> • Comply with the code of conduct of the gemmological laboratories to ensure the integrity and confidentiality of the test data and information • Keep up to date with and constantly learn the latest knowledge of diamond and the use of relevant identification equipment
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Able to have in-depth understanding/analysis of various kinds of diamonds, such as natural diamonds, synthetic gem-quality diamonds and their simulants; and • Operate precision identification equipment to obtain detailed and accurate data and information, so as to effectively carry out diamond identification duties to assess and grade diamonds after careful analysis.
Remark	<p>This unit of competency is written with reference to the following materials. Readers can study the relevant information according to their needs:-</p> <ul style="list-style-type: none"> • Guobiao standards GB/T16554-2017 (Diamond grading); • "Standard Methods for Testing Diamond for Hong Kong" developed by the Gemological Association of Hong Kong; and • Courses of The Gemmological Association of Great Britain (Gem-A), courses of The Gemological Institute of America (GIA), courses of The Swiss Gemmological Institute, courses of the International Gemmological Institute, etc.