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# GEMOLOGY

**Competency Standards** 

National Vocational Certificate Level 3

Version 1 - September 2018

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### TITLE OF QUALIFICATION

National Vocational Certificate level 3, in (Gems and Jewellery Sector) "Gemology"

#### INTRODUCTION

Gemology is the science dealing with natural and artificial gemstone material. It is considered a geo-science & a branch of mineralogy.

Initially education in gemology for jewelers and gemologist started in early nineteenth century. The National Association of Gold Smiths of UK (NAG) form a gemological committee in 1908 for accreditation of first qualification in Gemology. Later, this committee was restructured into the gemological association of the Great Britain (GEM-A). Now a days this association is working as an education charity and accredited awarding body of gemology with its curriculum followed worldwide.

This course of gemology enables the trainee to identify, categorize and evaluate the raw or polished gemstone. The trainee will be able to differentiate between natural and synthetic gemstone by using different gemological laboratory equipment for example gemological microscope spectrometer etc.

A gemstone can be identified on the basis of physical and optical properties. This course is designed to provide a comprehensive introduction to gemology and will increase job opportunities for the trainees; they can work as a Gemologist in industry or as self-employed. After completion of the course the trainees will not only be able to identify, evaluate and grade the gemstones using international standard equipment but also provide an opportunity to facilitate the local Gems & Jewellery sector of Pakistan.

Industry experts from the relevant industries from different geographical locations across Pakistan were consulted during the development process of these competency standards to ensure input and ownership of all the stakeholders. NAVTTC approves these competency standards on the recommendation of Industry Advisory Group (IAG) for the Gems and Jewelry sector.

The National Competency Standards could be used as a referral document for the development of curricula to be used by training institutions.

Training in the course is based on defined competency standards, which are industry oriented and the traditional role of a trainer changes and shifts towards the facilitation to trainees. A trainer encourages and assists trainees to learn for themselves. Trainees are likely to work in groups (pairs) and all doing something different. Some are doing practical tasks in the workshop, some writing, some not even in the classroom or workshop but in another part of the building using specialist equipment, working on computers doing research on the Internet or the library. As trainees learn at different pace they might well be at different stages in their learning, thus learning

must be tailored to suit individual needs. The following facilitation methods (teaching strategies) are generally employed:

- Direct Instruction Method: This might be effective when introducing a new topic to a larger group of trainees in a relative short amount of time. In most cases this method relies on one-way communication, hence there are limited opportunities to get feedback on the trainee's understanding.
- **Discussion Method:** This allows trainees to actively participate in sharing knowledge and ideas. It will help the trainer to determine whether trainees understand the content of the topic. On the other hand, there is a possibility of straying off topic under discussion and some trainees dominating others on their views.
- **Small Group Method:** Pairing trainees to help and learn from each other often results in faster knowledge/skill transfer than with the whole class. The physical arrangement of the classroom/workshop and individual assessment may be challenging. Analogy method should be in corporate.
- Problem Solving Method: This is a very popular teaching strategy for the training. Trainees are challenged and are usually highly motivated when they gain new knowledge and skills by solving problems (Contingency skills). Trainees develop critical thinking skills and the ability to adapt to new learning situations (Transfer skills). It might be time consuming and because trainees sometimes work individually, they may not learn all the things that they are expected to learn.
- Research Method: This is used for workshops and laboratory tasks, field experiments, and case studies. It encourages trainees to investigate and find answers for themselves and to critically evaluate information. It however requires a lot of time and careful planning of research projects for the trainee.

The detail of the competency standards included in this qualification are given below:

#### PURPOSE OF THE QUALIFICATION

The purpose of the training is to provide skilled manpower for the improvement of the existing Gems and Jewellery sector and related industry. This will improve the abilities and accreditation of a gemologist in terms of national and international standards applicable in the field of gemology. The availability of quality gemologists in the local and international markets will ultimately bring economic benefits to the Stakeholders of gems industry.

The core purpose of this qualification is to produce employable Gemologist, who could provide advanced Services of identification grading and valuation of gemstones. In addition this qualification will prepare youth for employment in Gemstone industry or work as an entrepreneur. To prepare and train students through skill training and enabling them to earn their living either through employment in industry or to be self-employed as an gemologist.

#### MAIN OBJECTIVES OF THE QUALIFICATION

Gemology qualification consists of theoretical and practical details required for the identification, Valuation and grading of precious, semi-precious, and raw or polished gemstone. The main objectives of the qualification are as follows:

- 1. Assess Physical properties of Gemstone
- 2. Assess Optical Properties of Gemstone
- 3. Differentiate between natural, treated, imitation and synthetic gemstone
- 4. Organic Gemstone
- 5. Perform color stone grading (Other than Diamond)
- 6. Perform Diamond Grading

#### DATE OF VALIDATION

The level 3 of national vocational qualification on Gems and Jewelry Sector – Gemology has been validated by the Qualifications Development Committee (QDC) members on May 2018 and will remain in currency until May 2021.

#### **CODES OF QUALIFICATIONS**

The International Standard Classification of Education (ISCED) is a framework for assembling, compiling and analyzing cross-nationally comparable statistics on education and training. ISCED codes for these qualifications are assigned as follows:

ISCED Classification for Gemology			
Code	Description		
0214G&J4	National Vocational Certificate level 3 in Gems and Jewellery Sector  – Gemology		

#### MEMBERS OF QUALIFICATIONS DEVELOPMENT COMMITTEE

The following members participated in the qualifications development and validation of these qualifications:

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#### **ENTRY REQUIREMENTS**

The entry for National Vocational Certificate level 3, in (Gems and Jewellery Sector) "Gemology" is given below:

Entry for assessment for this qualification is open. However, entry into formal training institutes, based on this qualification may require skills and knowledge equivalent to Matric (Grade 10).

#### **SUMMARY OF COMPETENCY STANDARDS**

Code	Competency Standards	Level	Credits	Category
0214G&J4A	Assess Physical properties of Gemstone	3	10	Functional
0214G&J4B	Assess Optical Properties of Gemstone	3	18	Technical
0214G&J4C	Differentiate between natural, treated, imitation and synthetic gemstone	3	20	Technical
0214G&J4D	Organic Gemstone	3	8	Functional
0214G&J4E	Perform color stone grading (Other than Diamond)	3	12	Functional
0214G&J4F	Perform Diamond Grading	3	12	Functional
041600453	Occupational health and safety	2	3	Technical
041600455	Communicate in the workplace to support customers and team	3	6	Technical

Code	Competency Standards	Level	Credits	Category
041600459	Work effectively in a customer service - sales environment	3	7	Technical
041600460	Develop professionalism	3	3	Technical
041600461	Comply with health and safety regulations	3	2	Technical

# Competency Standard A: Assess physical properties of gemstone

#### **Overview**

This competency standard covers the skills and knowledge required to Identify Gemstones by observing physical properties of gemstones through conducting physical tests on gemstones

Competency Units	Performance Criteria	Knowledge Understanding		
A1: Assess color of stone	Trainee will be able to: P1. Assess body color of stone P2. Assess tone of stone	Trainee will be able to know:  K1.Definition and causes of color in gemstones,		
	P3. Assess saturation of the gemstone	<b>K2</b> .Idiochromatic / Allochromatic gemstones.		
	P4. Assess Hue of the gemstone	<b>K3</b> .Understanding of Hue, Tone and Saturation		
		<b>K4</b> .Physical Properties of various gemstone		
A2:Assess cut of Gemstone	Trainee will be able to: P1. Check cutting style of the stone	Trainee will be able to know:  K1.Shapes and Types of cut		
	<ul><li>P2. Check the symmetry of the cut</li><li>P3. Identify the cutting defects in the given gemstone</li></ul>	<b>K2</b> .Understanding of symmetry, proportion and polish of gemstone		
A3: Assess transparency of gemstone	Trainee will be able to:  P1. Check the stone transparency type:  - Transparent - Translucent - Opaque	Trainee will be able to know:  K1.Nature and behavior of light and various definition related to transparency		

Competency Units	Performance Criteria	Knowledge & Understanding
	P2. Record the transparency types	
A4:Assess crystal system	Trainee will be able to:  P1. Check the crystal system of the gemstone with the help of dummy samples  P2. Record the crystal system	Trainee will be able to know:  K1.Basic Crystallography and description of various crystal systems
A5:Perform Hardness test	Trainee will be able to: P1. Collect Hardness tools  P2. Apply hardness test on gemstone  P3. Record the value of hardness	Trainee will be able to know:  K1.Definition of hardness,  K2.Mohs hardness scale  K3. Methods of Gemstone hardness testing
A6: Perform specific gravity test with Hydrostatic balance	<ul> <li>Trainee will be able to:</li> <li>P1. Collect Hydrostatic balance and stone</li> <li>P2. Adjust the Hydrostatic balance</li> <li>P3. Weigh the stone in air</li> <li>P4. Weigh the stone in water</li> <li>P5. Calculate specific gravity of the stone</li> </ul>	Trainee will be able to know:  K1.Definition of Specific Gravity  K2. Construction and uses of Hydrostatic balance  K3. Calculating Specific Gravity of gemstones
A6: Perform specific gravity test	Trainee will be able to: P1. Arrange heavy liquids	Trainee will be able to know:

Competency Units	Performance Criteria	Knowledge & Understanding	
by heavy liquids	<ul><li>P2. Perform test by using various heavy liquids</li><li>P3. Record specific gravity of the gemstone</li></ul>	<ul><li>K1. Different types of heavy liquids</li><li>K2. Specific gravity through heave liquids</li></ul>	
A7:Assess cleavage of Gemstone	Trainee will be able to:  P1. Observe the cleavage with the help of 10 X Loupe  P2. Record the cleavage	Trainee will be able to know:  K1.Definition and explanation of different types of Cleavage in gemstone.  K2. Different directions of cleavages	
A8: Assess clarity of Gemstone	Trainee will be able to:  P1. Assess the type of clarity with the help of 10 X Loupe  P2. Record the inclusion position and relief	Trainee will be able to know:  K1.Definition and explanation of different grades of Clarity in gemstone.	

# **Critical Evidence(s) Required**

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Note the Body color of Gemstone
- Type of Cut
- Transparency of gemstone
- Crystal System
- Hardness of gemstone comparing with moh's scale of Hardness
- Specific Gravity of Gemstone
- Observe the Clarity of Gemstone through loupe

# Tools and equipment required

- Light source
- Hardness Pencils
- Hydrostatic Balance
- Heavy Liquids
- Loupe(10x)
- Crystal Models
- Tweezers
- Samples of rough & cut gemstone

# Competency Standard B: Assess optical properties of gemstone

#### **Overview**

This competency standard covers the skills and knowledge required to Identify Gemstones by observing Optical properties of these gemstones through conducting Optical tests on gemstones

Competency Units	Performance Criteria	Knowledge & Understanding
B1: Assess Gemstone with	Trainee will be able to: P1. Collect inspection lamp	Trainee will be able to know:
light source	P2. Observe the brilliancy under lamp	<b>K1</b> .Definition and explanation of Brilliancy, Dispersion, Luster
	P3. Note the category of brilliance	<b>K2</b> .Optical Properties of various gemstones
	Note the dispersion rate in the gemstone	<b>K3</b> .Origin and Occurrences of various Gemstones
B2:Assess Phenomenon in	Trainee will be able to: P1. Collect inspection lamp	Trainee will be able to know:
Gemstone	P2. Observe the phenomenon in gemstone	<b>K1</b> .Definition and explanation of various Phenomenon in gemstone
	P3. Identify the phenomenon	
B3: Perform polarization	Trainee will be able to: P1. Collect Polaris cope	Trainee will be able to know:
test	P2. Adjust the analyzer and polarizer	<b>K1</b> .Definition and explanation of Polarized light
	P3. Decide about single refractive, double refractive and aggregate	<b>K2</b> . construction and usage of Polariscope in identification of gemstone

Competency Units	Performance Criteria	Knowledge & Understanding
B4:Perform pleochroism test	Trainee will be able to:  P1. Arrange dichroscope and light source to check pleochroism in gemstone  P2. Adjust light and dichroscope	Trainee will be able to know:  K1.Definition of Pleochroism, dichroism and trichroism,
	P3. Observe the gemstone for dichroism  P4. Note the Pleochroic color	<b>K2</b> .Construction and usage of dichroscope
B5: Assess	Trainee will be able to:	Trainee will be able to
refractive index of Gemstone	<ul><li>P1. Arrange the refractometer and refractive index liquid</li><li>P2. Apply liquid on hemi-cylinder</li></ul>	know: K1.Definition and explanation of Refractive Index and its table.
	P3. Place stone properly on hemi cylinder	<b>K2</b> .Construction and usage of refractometer.
	<b>P4</b> . Note the SR, DR or ADR and readings	<b>K3</b> . Refractive indices of various gemstones
	<b>P5</b> . Calculate birefringence of the gemstone	<b>K4</b> . Calculating method birefringence of the gemstone
		K5. SR, DR or ADR

### Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Note Brilliancy and Dispersion
- Observe and Note various Phenomenon
- Understand usage of Polari scope and separate gemstone on its bases
- Understand usage of Dichroscope and observe pleochroism
- Understand usage of Refractometer and observe Refractive Indices



# Tools and equipment required

- Light source
- Polariscope
- Dichroscope
- Refractometer
- Refractive index Fluid
- Tweezers
- Loupe
- Gemstone sample

# Competency Standard C: Differentiate between natural, treated, imitation and synthetic gemstone

#### Overview

This competency standard covers the skills and knowledge required to Identify and differentiates Natural, Synthetic and Imitation gemstones by observing various Physical and Optical properties of these gemstones through conducting various physical and Optical tests on gemstones.

Competency Units	Performance Criteria	Knowledge & Understanding
C1: Identification of natural gemstone on the basis of inclusion	Trainee will be able to:  P1. Arrange Gemological microscope and equipment	Trainee will be able to know:  K1.Construction and usage of microscope
	<ul> <li>P2. Adjust Gemological microscope</li> <li>P3. Observe the natural inclusions under different lighting techniques: <ul> <li>Bright field</li> <li>Dark field</li> <li>Reflected light</li> <li>Diffused light</li> </ul> </li> <li>P4. Plot a sketch as per observations</li> <li>Note: Tally observed inclusions with reference book (Photo Atlas)</li> </ul>	K2.Types, explanation and identification of different inclusions
C2: Identify treated gemstone on the basis of inclusion	Trainee will be able to:  P1. Arrange Gemological microscope and equipment  P2. Adjust Gemological microscope	Trainee will be able to know:  K1.Explanation of various types methods of treatments on
	<ul><li>P3. Observe the treated inclusions under different lighting techniques:</li><li>Bright field</li><li>Dark field</li></ul>	gemstone.  K2. Effects of treatment on gemstone

Competency Units	Performance Criteria	Knowledge & Understanding
	<ul><li>Reflected light</li><li>Diffused light</li><li>P4. Plot a sketch as per observations</li></ul>	<b>K3</b> . Methods of identification of treated gemstones
	Note: Tally observed inclusions with reference book (Photo Atlas)	
C3: Identify imitation/assembled Gemstones on the basis of inclusion	Trainee will be able to:  P1. Arrange Gemological microscope and equipment  P2. Adjust Gemological microscope	Trainee will be able to know:  K1.Definition and types of Imitation gemstone,
	<ul> <li>P3. Observe the imitation inclusions under different lighting techniques:</li> <li>Bright field</li> <li>Dark field</li> <li>Reflected light</li> <li>Diffused light</li> <li>P4. Plot a sketch as per observations</li> <li>Note: Tally observed inclusions with reference book (Photo Atlas)</li> </ul>	<ul><li>K2.Methods of their production</li><li>K3. Techniques to identify Imitations through microscope.</li></ul>
C4: Identify synthetic gemstone on the basis of inclusions	Trainee will be able to:  P1. Arrange Gemological microscope and equipment  P2. Adjust Gemological microscope	Trainee will be able to know:  K1.Definition and explanation of Synthetic Gemstone.
	<ul> <li>P3. Observe the different types of synthetic inclusions under different lighting techniques:</li> <li>Bright field</li> <li>Dark field</li> <li>Reflected light</li> </ul>	K2.Methods of production of synthetic gemstone  K3. Properties and types of inclusions in synthetic gemstone.

Competency Units	Performance Criteria	Knowledge Understanding	&
- Diffused light			
	P4. Plot a sketch as per observations		
	Note: Tally observed inclusions with		

# Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

reference book (Photo Atlas)

- To identify natural gemstones
- To identify Treated gemstones
- To identify Imitation/ assembled gemstones
- To identify Synthetic gemstones

# Tools and equipment required

- Microscope
- Tweezers
- Gemstone samples

# **Competency Standard D: Organic gemstones**

### Overview

This competency standard covers the skills and knowledge required to Identify various Organic gemstones and their Imitation by observing various Physical and Optical properties of these Organic gemstones through conducting various physical and Optical tests on Organic gemstones.

Competency Units	Performance Criteria	Knowledge & Understanding
D1: Identify Pearl	Trainee will be able to: P1. Observe color and tone of pearl	Trainee will be able to know:  K1.Defination and Explanation of Pearl
	<ul><li>P2. Observe luster of Pearl</li><li>P3. Observe Shape and surface of Pearl</li></ul>	<b>K2</b> .Physical and Optical Properties of Pearl
	P4. Observe size and measurement of pearl	<ul><li>K3. Process of Pearl Cultivation</li><li>K4. Origin and locations of</li></ul>
	P5. Perform Grading of Pearl	Natural and cultured Pearls
	<b>P6</b> .Understand different types of Pearls	<b>K5</b> . Types of Pearls <b>K6</b> . Different Imitation of
	P7. Understand Imitation Pearl	Pearls
		<b>K7</b> .Parameters of Pearl grading
D2: Identify Coral	Trainee will be able to: P1. Observe color and tone of Coral	Trainee will be able to know:

Competency Units	Performance Criteria	Knowledge & Understanding
	P2. Observe luster of Coral	<ul><li>K1.Defination and Explanation of Coral</li><li>K2.Physical and Optical</li></ul>
	P3. Observe Shape and cut of Coral	Properties of Coral <b>K3</b> . Formation and Occurrence of Coral
	P4. Understand Imitation Coral	<b>K4</b> .Parameters of Coral grading
	P5. Perform Grading of Coral	<b>K5</b> .Different Imitation of Corals
D3: Identify Amber	Trainee will be able to:	Trainee will be able to
	P1. Observe color and tone of Amber	<b>know: K1</b> .Defination and Explanation of Amber
	<ul><li>P2. Observe luster of Amber</li><li>P3. Observe Shape and cut of</li></ul>	<b>K2</b> .Physical and Optical Properties of Amber
	Amber  P4. Understand different types	<b>K2</b> . Formation and Occurrence of Amber
	of Amber  P5.Understand Imitation of	<b>K3</b> .Parameters of Amber grading
	Amber  P5. Perform Grading of Amber	<b>K4</b> .Different Imitation of Amber
D.4 Identify other Organic gemstones	Trainee will be able to: P1. Observe color and tone of Organic gemstone	Trainee will be able to know:  K1.Defination, Explanation, Origin and Occurrence of
	P2. Observe luster of Organic gemstone	Ivory

Competency Units	Performance Criteria	Knowledge & Understanding
	P3. Observe Shape and cut of Organic gemstone	<b>K1</b> .Physical and Optical Properties of Ivory
	P4. Understand Ivory and its Imitation	<b>K2</b> .Defination, Explanation, Origin and Occurrence of Jet
	<b>P5</b> .Understand Jet and its Imitation	<b>K3</b> .Physical and Optical Properties of Jet
	<b>P6</b> . Understand Bones, Crocodile shell and fossils	<b>K4</b> .Defination, Explanation, Origin and Occurrence of Bones, crocodile shell and fossils.
		<b>K5</b> .Physical and Optical Properties of Bones, crocodile shell and fossils
		<b>K6</b> .Parameters of Bones, crocodile shell and fossils
		<b>K7</b> .Different Imitation of Bones, crocodile shell and fossils
D4: Identify Cut	Trainee will be able to:	Trainee will be able to
	P1. Arrange 10X loupe and tweezers	<b>know: K1</b> .Various types of gemstone shapes
	P2. Observe the cutting style	<b>K2</b> . Various cut of gemstone.
	P3. Check polish quality of the gemstone	<b>K3</b> . Symmetry and polish of gemstone.
	P4. Record the cut grade	
D5: Perform weight	Trainee will be able to:	Trainee will be able to know:

Competency Units	Performance Criteria	Knowledge & Understanding
	P1. Arrange weighing balance and tweezers	<b>K1</b> .Definition and explanation of weighing units.
	P2. Adjust weighing balance	<b>K2</b> .Importance of weight in grading
	P3. Take weight	
	P4. Record the weight	

# Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Identify and Grade Pearl.
- Identify and Grade Coral
- Identify and Grade Amber
- Identify and Grade Other Organic Gemstones

# Tools and equipment required

- Tweezers
- Loupe
- Light source
- Polariscope
- Refractometer
- Microscope
- Weighing Balance
- Gemstone (Pearl, Coral, Amber)

# Competency Standard E: Perform color stone grading (Other than Diamond)

### Overview

This competency standard covers the skills and knowledge required to Grade various gemstones by observing Color, Clarity, Cut and Carat Weight

Competency Units	Performance Criteria	Knowledge & Understanding
D1: Perform Color grading	<ul> <li>Trainee will be able to:</li> <li>P1. Observe gemstone under light source and examine the:</li> <li>P2. Judge the basic color of Gemstone</li> <li>P3. Judge the tone of Gemstone</li> <li>P4. Observe the saturation of color in gemstone</li> <li>P5. Record the gemstone color</li> </ul>	Trainee will be able to know:  K1.Definition and explanation of Grading of gemstone.  K2. Definition of Hue, tone and saturation
D2: Perform Clarity grading	Trainee will be able to: P1. Arrange 10X loupe and tweezers  P2. Observe the inclusion on the basis of:  - Size - Position - Relief	Trainee will be able to know:  K1.Definition of Clarity  K2.Position and relief of inclusion in gemstone

Competency Units	Performance Criteria	Knowledge & Understanding
	P3. Record the clarity type	<b>K3</b> . grading of gemstone as per clarity
	Trainee will be able to:	Trainee will be able to know:
grading	P1. Arrange 10X loupe and tweezers	<b>K1</b> .Various types of
	P2. Observe the cutting style	gemstone shapes
	P3. Observe the cut symmetry	<b>K2</b> . Various cut of gemstone.
	P4. Observe proportion	<b>K3</b> . Symmetry, blemishes, proportion and polish of
	P5. Check facets	gemstone.
	P6. Check polish quality of the gemstone	
	P7. Check blemishes	
	P8. Record the cut grade	
D4: Perform weight grading	Trainee will be able to:	Trainee will be able to know:
g	P1. Arrange weighing balance and tweezers	<b>K1</b> .Definition and explanation of
	P2. Adjust weighing balance	weighing units.
	P3. Take weight in carats	<b>K2</b> .Importance of weight in grading
	P4. Record the carat weight	

# Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

• To grade the gemstone

# Tools and equipment required

- Tweezers
- Loupe
- Light source
- Weighing balance
- Gemstone sample

# Competency Standard F: Perform Diamond grading

#### **Overview**

This competency standard covers the skills and knowledge required to Grade Diamond by observing Color, Clarity, Cut and Carat Weight

Competency Units	Performance Criteria	Knowledge & Understanding
E1: Perform Color grading	<ul> <li>Trainee will be able to:</li> <li>P1. Observe Diamond under day light source</li> <li>P2. Compare it with a master samples according to the international standard.</li> <li>P3. observe color in Diamond according to the international standard</li> <li>P4. Record the color grade</li> </ul>	Trainee will be able to know:  K1. Definition and explanation of color grading of Diamond.  K2. Methods and tools used in grading color of diamond.
E2: Perform Clarity grading	Trainee will be able to: P1. Arrange 10X loupe and tweezers  P2. Observe the inclusion on the basis of: Size Position Relief	Trainee will be able to know:  K1.Definition and explanation of Clarity of Diamond.  K2.Methods and tools used in Diamond grading.  K3.Types of Inclusions and Blemishes.
	<b>P3</b> . Record the clarity type (Grade the clarity as per result)	<b>K4</b> .Explanation of various Grades of Diamonds

Competency Units	Performance Criteria	Knowledge & Understanding
E3: Perform Cut grading	Trainee will be able to: P1. Arrange 10X loupe and light source and tweezers  P2. Observe the cutting style P3. Observe the cut symmetry P4. Observe girdle thickness P5. Estimate culet size P6. Estimate table percentage P7. Estimate Crown percentage P8. Estimate pavilion depth P9. Grade the proportion P10. Check facets P11. Check polish quality	
	P12. Check blemishes  P13. Record the cut grade according to the international standard	
E4: Perform weight grading	Trainee will be able to:  P1. Arrange weighing balance and tweezers  P2. Take weight in carat	Trainee will be able to know:  K1.Definition and explanation of weighing unit.
	P3. Record the carat weight	<b>K2</b> . Estimation of Diamond weight through measurements.

# Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Color Grade Diamond
- Clarity Grade
- Cut Grade
- · Carat weight of Diamond

# Tools and equipment required

- Tweezers
- Loupe
- Microscope
- Weighing balance
- Master Color samples

# Occupational health and safety

# **Purpose**

It is for the safety of persons working in that environment.

#### **Classification ISCED**

0416 Wholesale and retail sales

# Available grade

Competent / Not yet competent

# **Modification history**

N/A

Unit of Competency	Performance Criteria	Knowledge
I1. Identify and implement safe	You must be able to: P1. Study of facility layout design	You must know and understand: K1. Knowledge of health and safety
working practices	and operations P2. Implement the health and safety measures	precautions

# Communicate in the workplace to support customers and team

# **Purpose**

This Competency standard identifies the competencies required to communicate in the workplace to support customers and team as per organization's approved guidelines and procedures. You will be expected to communicate face-to-face with customers, use technology to communicate with customers, communicate with customers and colleagues from diverse backgrounds, work in a team, ask appropriate probing / questioning from customers and provide continuous feedback to customers / colleagues. Your underpinning knowledge about basic communication tools and correspondence tactics will be sufficient for you to provide the basics of the work.

#### Classification ISCED

# Available grade

Competent / Not yet competent

# **Modification history**

N/A

Unit of Competency	Performance Criteria	Knowledge	
B1.	You must be able to:	You must be able to:	
Communicate	P1. Maintain welcoming customer	K1. Explain different techniques	
face-to-face	environment that reflects	that can be applied when	
with customers.	company branding and market	communicate with customer	
	position and is in line with the	face to face	
	company policy and	K2. Describe types of customer	
	procedures.	behavior and dealings	
	P2. Greet customer warmly	K3. Explain different	
	according to company policy	communication skills and	
	and procedures.	techniques	
	P3. Create effective service	K4. Explain the basic key	
	environment through verbal	elements of the	

Unit of Competency	Performance Criteria	Knowledge
	and non-verbal interaction according to company policy and procedures.  P4. Use questioning and active listening to determine customer needs.  P5. Use positive and inclusive language.  P6. Recognize personal factors impact on customer service delivery	communication process.  K5. Describe a range of communication methods that can be used to effectively communicate with customers and identify the most appropriate to use in different situations.  K6. Explain how 'body language' impacts on the communication process.
B2. Use	You must be able to:	You must be able to:
technology to communicate with customers.	<ul> <li>P1. Answer telephone according to the company procedures.</li> <li>P2. Questioning and active listening to identify caller and establish and confirm requirements.</li> <li>P3. Use telephone system functions according to instructions.</li> <li>P4. Use email, social networking sites and other technologies to receive and process information and customer requests in line with company policy and procedures.</li> <li>P5. Record and promptly pass on messages or information.</li> <li>P6. Inform customer of any problems and relevant action being taken.</li> <li>P7. Perform follow-up action as</li> </ul>	<ul> <li>K1. Identify the recognized principles of communicating electronically, by telephone and in writing.</li> <li>K2. Describe the different methods of collecting customer feedback on telephone.</li> <li>K3. Explain the importance of collecting customer feedback and how this can be used to improve customer service.</li> <li>K4. Describe how technology can affect and enhance the service delivery process.</li> </ul>
В3.	necessary.  You must be able to:	You must be able to:
Communicate with customers and colleagues from diverse backgrounds.	<ul> <li>P1. Treat customers     and colleagues from diverse     backgrounds with respect and     sensitivity.</li> <li>P2. Consider cultural differences     in verbal and non-verbal     communication.</li> </ul>	<ul> <li>K1. Identify the barriers to effective communication that can arise and how best to deal with these.</li> <li>K2. Identify and explain when it is necessary to seek advice or assistance from colleagues</li> </ul>

Unit of Competency	Performance Criteria	Knowledge
Общрененсу	<ul> <li>P3. Use gestures or simple words to communicate where language barriers exist.</li> <li>P4. Obtain assistance from colleagues or supervisors when required to facilitate communications.</li> </ul>	and when to take own initiative.  K3. Describe different types of dealings techniques with different types of behaviors
B4. Work in a	You must be able to:	You must be able to:
team.	<ul><li>P1. Display a courteous and helpful manner at all times.</li><li>P2. Complete allocated tasks willingly, according to set</li></ul>	<ul><li>K1. Define team work.</li><li>K2. Explain the importance of team work.</li><li>K3. Define company goals and</li></ul>
	timeframes. P3. Actively seek or provide assistance by approaching other team members when	objectives as well as SOPs of the company K4. Explain different concepts and techniques of problem solving
	difficulties arise. P4. Identify and use lines of communication with supervisors and peers according to company policy.	<ul><li>K5. Describe systematic decision making process</li><li>K6. Describe characteristics of a successful teamwork experience.</li></ul>
	P5. Encourage, acknowledge and act upon constructive feedback provided by other team members.	
	P6. Use questioning to minimise misunderstandings.	
	P7. Identify signs of potential workplace conflict wherever possible and take action to resolve the situation using open and respectful communication.	
	<ul><li>P8. Participate in team problem solving.</li><li>P9. Interpret organization's goals</li></ul>	
	and objectives and translate them into individual targets P10. Prepare plan of action to achieve individual as well as team goals	
B5. Ask	You must be able to:	You must be able to:
appropriate probing / questioning	P1. Use different types of questions when appropriate.	K1. Explain:  Open-ended questions

	Performance Criteria		Knowledge
	answer freely.		<ul> <li>Close-ended questions</li> <li>High gain questions</li> <li>Mirror questions</li> <li>Probing questions</li> <li>Situation questions</li> </ul>
	information (information that links directly to product or service)		·
You	must be able to:	You	ı must be able to:
P1.	Give and receive feed-back	K1.	Explain how to use customer
P2.	with customers.		feed-back to improve your business
	language and read customers body language.	K2.	Define importance of body language.
P3.	Give and receive feed-back with internal departments.	K3. K4.	Explain communication ethics.  Define organizational Jargon.
P4.	Design a communication system / process and share information.		
P5.	to work together in the interest		
P6.			
	•		
	identify opportunities for		
	•		
	P3. P4. P1. P2. P3. P4.	<ul> <li>P2. Allow the other person to answer freely.</li> <li>P3. Collect facts, information and data about the other person's situation.</li> <li>P4. Focus on the necessary information (information that links directly to product or service)</li> <li>You must be able to:</li> <li>P1. Give and receive feed-back with customers.</li> <li>P2. Apply appropriate body language and read customers body language.</li> <li>P3. Give and receive feed-back with internal departments.</li> <li>P4. Design a communication system / process and share information.</li> <li>P5. Gain commitment from others to work together in the interest of the customers.</li> <li>P6. Conduct meetings.</li> <li>P7. Utilize the feed-back to</li> </ul>	P2. Allow the other person to answer freely. P3. Collect facts, information and data about the other person's situation. P4. Focus on the necessary information (information that links directly to product or service)  You must be able to:  P1. Give and receive feed-back with customers. P2. Apply appropriate body language and read customers K2. body language. P3. Give and receive feed-back with internal departments. P4. Design a communication system / process and share information. P5. Gain commitment from others to work together in the interest of the customers. P6. Conduct meetings. P7. Utilize the feed-back to identify opportunities for product / service

# Work effectively in a customer service/ sales environment

# **Purpose**

This Competency standard identifies the competencies required Work Effectively in a Customer Service/Sales Environment as per Organization's approved guidelines and procedures. You will be expected to work within organizational requirements, support the work team, maintain personal presentation, develop effective work habits, portray ethical behaviour and acquire up to date product / service knowledge. Your underpinning knowledge about Work Effectively in a Customer Service/Sales Environment will be sufficient for you to provide the basics of the work.

#### Classification ISCED

0416 Wholesale and retail sales

#### Available grade

Competent / Not yet competent

# **Modification history**

N/A

Unit of Competency	Performance Criteria	Knowledge
F1. Work within organizational	You must be able to:	You must be able to:
requirements.	P1. Identify and read organisation's requirements and responsibilities and seek advice from appropriate people where necessary.  P2. Interpret staff rosters and provide sufficient notice of unavailability	<ul> <li>K1. Define industry awards and agreements that relate to personal job role and terms and conditions of employment.</li> <li>K2. Differentiate between employer and employee responsibilities.</li> <li>K3. Explain different relevant legislation and statutory requirements.</li> </ul>

for rostered hours
according to workplace
policy and procedures.

- P3. Develop and use a current working knowledge and understanding of employee and employer rights and responsibilities.
- P4. Comply with relevant duty of care and legal responsibilities, and support organisational culture.
- P5. Identify roles and responsibilities of colleagues and immediate supervisors.
- P6. Identify standards and values considered to be detrimental to the organisation and communicate this through appropriate channels.
- P7. Identify, recognise and follow behaviour that contributes to a safe and sustainable work environment.

# F2.Support the work team.

#### You must be able to:

- P1. Display courteous and helpful behaviour at all times.
- P2. Take opportunities to enhance the level of assistance offered to colleagues and meet all reasonable requests for assistance within acceptable workplace timeframes.
- P3. Complete allocated tasks as required.

#### You must be able to:

- K1. Explain the importance of team work
- K2. Define workplace relations
- K3. Explain workplace policies, plans and procedures, including:
  - Dealing with grievances
  - Discriminatory behavior
  - Equal opportunity issues.
  - Staff rosters and notification of shift
  - Availability or non-

- P4. Seek assistance when difficulties arise.
- P5. Use questioning techniques to clarify instructions or responsibilities.
- P6. Identify and display a non-discriminatory attitude in all contacts with customers and other staff members.

- attendance
- Providing customer service to colleagues and customers.

#### F3. Maintain personal You must be able to: presentation.

- P1. Observe appropriate dress code and presentation as required by the workplace, job role and level of customer contact.
- P2. Follow personal hygiene procedures according to organisational policy and relevant legislation.

#### You must be able to:

- K1. Explain hygiene and personal presentation
- K2. Explain the importance of workplace ethics

#### F4. Develop effective work habits.

#### You must be able to:

- P1. Interpret, confirm and act on workplace information, instructions and procedures relevant to the particular task.
- P2. Ask questions to seek and clarify workplace information.
- P3. Plan and organise daily work routine within the scope of the job role.
- P4. Prioritise and complete tasks accordin g to required timeframes.
- P5. Identify work and personal priorities and achieve a balance between competing priorities

#### You must be able to:

- K1. Explain staff counseling and disciplinary procedures
- K2. Describe workplace organizational structure.

F5. Portray ethical behavior	You must be able to:	You must be able to:
	<ul> <li>P1. Follow ethical code of conduct.</li> <li>P2. Understand your costumer's code of ethics.</li> <li>P3. Declare conflict of interest.</li> <li>P4. Maintain confidentiality.</li> <li>P5. Honour your commitments (timeframe, deliverables etc.)</li> <li>P6. Use internet for business only on company time.</li> </ul>	<ul> <li>K1. Explain the importance of ethical behavior.</li> <li>K2. Explain the importance of commitment in sales and customer services.</li> </ul>
F6. Acquire up to date	You must be able to:	You must be able to:
product / service knowledge	P1. Gather information about your product / services. P2. Identify the components of your product and services. P3. Recognize the essential selling features of your products and services. P4. Translate all essential features of your product and services. P5. Analyze product success. P6. Identify your market position. P7. Familiar with all product promotions, sales manuals and product literature.	K1. Explain:  Price per product. Profit per product / service. Price flection Product strengths Product weaknesses. Warranty / guarantee policies. Packaging facilities and potential.  K2. Explain how your product/service fits into your customers overall operations, business plan, sales success, operation cost etc.
	P8. Keep information of latest technology	

advances and seek ways to use these technologies in your

work.

# **Develop professionalism**

# **Purpose**

This Competency standard identifies the competencies required to Develop Professionalism as per Organization's approved guidelines and procedures. You will be expected to create a personal vision / mission, manage your attitude, practice self-discipline, manage time, manage your professional development, and participate in trainings and performance review. Your underpinning knowledge about Develop Professionalism will be sufficient for you to provide the basics of the work.

#### **Classification ISCED**

0416 Wholesale and retail sales

### Available grade

Competent / Not yet competent

# **Modification history**

N/A

Unit of Competency	Performance Criteria	Knowledge
G1. Create a personal vision / mission	<ul> <li>You must be able to:</li> <li>P1. Clarify / prioritize selfvalues and consider the value of others.</li> <li>P2. Clarify expectations of yourself and expectations others have of you.</li> <li>P3. Identify what you need to do to be successful (personal standards, targets, goals, principals)</li> <li>P4. Set specific short and long term goals.</li> <li>P5. Translate the vision into</li> </ul>	<ul> <li>You must be able to:</li> <li>K1. Explain long and short term goals.</li> <li>K2. Explain why personal vision and mission is important for success.</li> <li>K3. Describe the advantages of personal vision and mission.</li> </ul>

	actionable steps.  P6. Integrate the vision into daily practice.  P7. Recount frequently with your vision and change accordingly.		
G2. Manage your attitude.	<ul> <li>You must be able to:</li> <li>P1. Challenge yourself, break old habits, and move out of your comfort zone.</li> <li>P2. Practice innovative techniques for out of the box creative thinking.</li> <li>P3. Seek out support and feedback from others on the team, in the organization / community etc.</li> <li>P4. Identify daily, weekly accomplishments.</li> <li>P5. Read inspirational material, audiotapes etc.</li> </ul>	<ul> <li>You must be able to:</li> <li>K1. Explain the importance of personal and professional motivation</li> <li>K2. Identify your positive attitude.</li> <li>K3. Explain the advantages of innovative ideas and techniques during job.</li> </ul>	
G3. Practice self-	You must be able to:	You must be able to:	
discipline	<ul> <li>P1. Accountable for your performance.</li> <li>P2. Identify what you need to do to be successful.</li> <li>P3. Communicate your priorities to others.</li> <li>P4. Make and honour appointments with yourself and others.</li> <li>P5. Practice relaxation and energizing techniques.</li> </ul>	<ul><li>K1. Explain the importance of communication.</li><li>K2. Explain the advantages of self-discipline.</li></ul>	
G4. Manage time	You must be able to:	You must be able to:	
	<ul> <li>P1. Isolate key success activities and prioritize them.</li> <li>P2. Breakdown large tasks down into manageable action steps (set time frame).</li> <li>P3. Create or adopt action plans and follow it.</li> <li>P4. Set aside appropriate blocks of time for goal-</li> </ul>	K1. Explain the importance of time management to achieve different tasks.	

P5. Make the best possible use of support people / recourses to accomplish tasks.

# G5.Manage your professional development

#### You must be able to:

- P1. Take inventory of your personal interests, abilities, skills, knowledge etc.
- P2. Identify and prioritize the strengths and gaps.
- P3. Use available assessment tools.
- P4. Create a personal growth strategy / career path.
- P5. Set personal goals and timeframe for achieving them.
- P6. Learn from your mistakes.

#### You must be able to:

K1. Explain the importance and need of professional development.

# G6.Participate in trainings and performance review

#### You must be able to:

- P1. Analyse, evaluate and improve performance, and report significant issues/problems to senior management
- P2. Demonstrate to-do attitude in profession
- P3. Demonstrate understanding of skills requirements
- P4. Use the competences acquired in trainings

#### You must be able to:

- K1. Define concept about performance standards.
- K2. Explain policies, procedures and regulations regarding human resources of the organization.
- K3. Explain self-planning and management techniques
- K4. Define goals and strategies of self- development.
- K5. Explain relevant knowledge about training / job requirements

# **Comply with health and safety regulations**

# **Purpose**

This Competency standard identifies the competencies required to comply with health and Safety Regulations as per Organization's approved guidelines and procedures. You will be expected to interpret health and safety regulations, apply basic safety procedures and apply basic emergency procedures. Your underpinning knowledge about comply with health and safety regulations will be sufficient for you to provide the basics of the work.

#### **Classification ISCED**

0416 Wholesale and retail sales

# Available grade

Competent / Not yet competent

# **Modification history**

N/A

Unit of Competency	Performance Criteria	Knowledge
H1.Interpret health and safety	You must be able to:	You must be able to:
regulations, standards and guidelines of an organization.	<ul> <li>P1. Identify, understand and apply health and safety regulations at workplace</li> <li>P2. Assess risk of injury and equipment damages in common work situations and report to department concerned for timely response</li> <li>P3. Participate in quality enhancement of products or services of the</li> </ul>	<ul> <li>K1. Explain concepts and principles of health, safety, quality and environment regulations.</li> <li>K2. Define types of risk of injuring and equipment damages.</li> <li>K3. Describe types of risk and injury at workplace.</li> <li>K4. Explain the procedure of dealing with risk and injury</li> </ul>

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orgai	112at	.0

- P4. Comply with quality and safety standards effectively
- P5. Handle toxic and hazardous material and product with caution
- P6. Assess risk of injuries and accidents and report it to senior management for avoiding serious injuries

#### situation.

- K5. Explain health and safety policies and guidelines of the organization.
- K6. define characteristics and types of toxic and hazardous material or products offered by company and their impact on environment.

# H2. Apply basic safety procedures.

#### You must be able to:

- P1. Follow safety procedures to achieve a safe work environment, according to all relevant WHS legislation, including codes of practice relating to particular hazards in the industry or workplace.
- P2. Identify and report unsafe work practices, including faulty plant and equipment according to company policy and procedures
- P3. Manage dangerous goods and substances according to company policy and relevant legislation.
- P4. Identify potential manual handling risks and manage manual handling tasks according to company policy.
- P5. Report work-related incidents and accidents to designated personnel.
- P6. Participate in consultative processes and procedures for WHS.

#### You must be able to:

- K1. Explain appropriate use of personal protective clothing.
- K2. Explain the procedure to eliminating hazards.
- K3. Explain first aid procedures.

H3. Apply basic
emergency
procedures.

#### You must be able to:

- P1. Follow fire and emergency procedures, including evacuation, according to company policy and legislation.
- P2. Identify designated personnel responsible for first aid and evacuation procedures.
- P3. .Accurately identifies safety alarms.

#### You must be able to:

- K1. Define fire, chemical and electrical hazards
- K2. Explain slip, trips and falls
- K3. Explain the procedure of storage of dangerous goods and hazardous substances and waste.
- K4. Define communication and consultation processes.
- K5. Explain manual handling procedures.

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