



**NATIONAL COMPETENCY STANDARDS  
FOR  
ANIMATOR  
(NC2 & NC3)**

**Department of Occupational Standards  
Ministry of Labour and Human Resources  
Thimphu, Bhutan.  
(2017)**



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## FOREWORD

The Department of Occupational Standards of the Ministry of Labour and Human Resources proudly presents the revised National Competency Standards (NCS) for Animator as part of TVET reform initiative for improving the quality of Vocational Education and Training System in Bhutan. The standards represent the fruits of hard work and invaluable experiences gained by the department since its establishment in the latter half of 2003. The main aim of developing National Competency Standards is to set up a well-defined nationally recognized Vocational Qualification and Certification system that will help set a benchmark for the Technical Vocational Education and Training (VET) System in our country aligned to international best practices.

National Competency Standards is one of the base pillars in the Bhutan Vocational Qualification Framework (BVQF) and is the first step in its implementation. The standards are developed to ensure that employees or vocational graduates possess and acquire the desired skills, knowledge and attitude required by industries and employers. In order to ensure this close match in supply and demand of skills, knowledge and attitude, standards have been developed in close consultation and partnership with industry experts and validated by the Technical Advisory Committees for the concerned economic sectors.

A vocational education and training system based on National Competency Standards shall ensure that delivered training is of a high quality and relevant to the needs of the labour market. As a result, future TVET graduates will be better equipped to meet the need and expectations of industries and employers. This positive impact on the employability of TVET graduates will enhance the reputation of vocational education and training and make it attractive to school leavers.

While acknowledging the existing level of cooperation and collaboration, the ministry earnestly requests employers and training providers to extend the fullest support and cooperation in implementing the National Competency Standards. The ultimate objective is to build a competent and productive national workforce that will contribute to the continued socio-economic progress of our country.

I gratefully acknowledge the valuable contributions made by experts from industries during the consultation, verification and validation processes of the

standards. I look forward to improved engagement and active participation of the industry and employers in the development of a quality assured demand driven TVET system in the near future.

Dorji Tshering

**Director**

Department of Occupational Standards,  
Ministry of Labour and Human Resources

## ACKNOWLEDGEMENT

**Validation date** : 1<sup>st</sup> September, 2017.

**Endorsement date** : 3<sup>rd</sup> September, 2017.

**Date of Review** : 3<sup>rd</sup> September, 2020 (max. 3 years).

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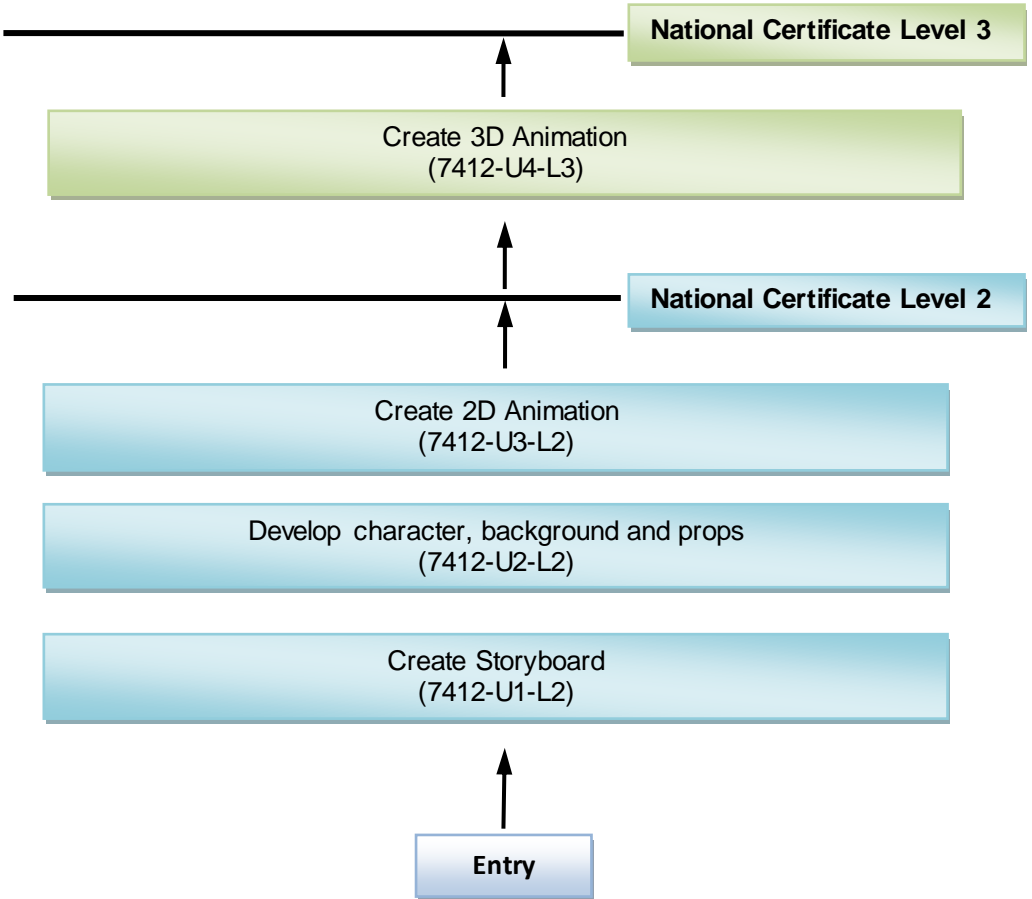
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## PACKAGING OF QUALIFICATIONS



## OVERVIEW OF UNIT COMPETENCIES

### National Certificate - Level 2

UNIT TITLE	ELEMENTS OF COMPETENCE	PAGE
Create storyboard	<ol style="list-style-type: none"><li>1. Draw the visual action</li><li>2. Describe the scene</li><li>3. Create animatic</li></ol>	8
Develop character, background and props.	<ol style="list-style-type: none"><li>1. Develop character and its props</li><li>2. Develop background and its props</li></ol>	11
Create 2D animation	<ol style="list-style-type: none"><li>1. Animate 2D character and its props</li><li>2. Animate background and its props</li></ol>	14

### National Certificate - Level 3

UNIT TITLE	ELEMENTS OF COMPETENCE	PAGE
Create 3D animation	<ol style="list-style-type: none"><li>1. Model 3D character, background and props</li><li>2. Animate 3D character and its props</li><li>3. Animate background and its props</li></ol>	17

**UNIT TITLE :** Create storyboard

**DESCRIPTOR:** This unit covers the competencies required to draw the visual action, describe the scene and create animatic following all relevant standard procedures / specifications, ensuring safety practices at all times.

**CODE :** 2642-U1-L2

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Draw the visual action	1.1 Select and use <b>tools and equipment</b> as per the job requirement following standard procedures 1.2 Select and use <b>materials</b> as per the job requirement following standard procedures. 1.3 Read and interpret the scripts as per the job requirement 1.4 Create thumbnails for particular scene / shot as per the script and direction following standard procedures 1.5 Create thumbnails digitally for particular scene / shot as per the script and direction following standard procedures 1.6 Finalize the thumbnails as per the direction following standard procedures
2. Describe the screenplay	2.1 Describe the <b>scene</b> as per the script and direction following standard procedures 2.2 Describe the camera angle as per the direction following standard procedures 2.3 Describe the visual effects as per the script and direction following standard procedures
3. Create Animatic	3.1 Select and use editing software as per the standard procedures 3.2 Import and line up storyboard panels in the timeline following standard procedures.

	3.3	Import <b>audio file</b> following standard procedures.
	3.4	Match visual and audio following standard procedures and take necessary action as per job requirement.
	3.5	Finalize the animatic creations following standard procedures.
	3.6	Export the final animatic creation in required format following standard procedures.

<b>RANGE STATEMENT</b>	
Work may take place in an animation studio / art department or in a training center.	
Performance of these unit is expected to be performed in accordance with following standards, rules & regulations:	
<ul style="list-style-type: none"> <li>• BICMA regulations</li> </ul>	
<b>Tools and equipment may include but not limited to conducting:</b>	
<ul style="list-style-type: none"> <li style="width: 50%;">• Scanner</li> <li style="width: 50%;">• Computer</li> <li style="width: 50%;">• Photocopier</li> <li style="width: 50%;">• Software</li> <li style="width: 50%;">• Camera</li> </ul>	
<b>Materials may include but not limited to:</b>	
<ul style="list-style-type: none"> <li style="width: 50%;">• Storyboard format paper</li> <li style="width: 50%;">• Scales</li> <li style="width: 50%;">• Pencils</li> <li style="width: 50%;">• Sharpener</li> <li style="width: 50%;">• Eraser</li> <li style="width: 50%;">• Digital drawing pad / graphic tablet</li> </ul>	
<b>Scene may include but not limited to:</b>	
<ul style="list-style-type: none"> <li style="width: 50%;">• Background</li> <li style="width: 50%;">• Expression</li> <li style="width: 50%;">• Action</li> <li style="width: 50%;">• Composition</li> </ul>	
<b>Audio may include but not limited to:</b>	
<ul style="list-style-type: none"> <li style="width: 50%;">• Dialogue</li> <li style="width: 50%;">• Music</li> <li style="width: 50%;">• Sound</li> </ul>	

**Critical aspects applicable to these unit:**

- Demonstrate safe working practices at all times in accordance with OHS regulations.
- Create thumbnails for particular scene / shot as per the script and direction following standard procedures

<b>UNDERPINNING KNOWLEDGE</b>	<b>UNDERPINNING SKILLS</b>
<ul style="list-style-type: none"><li>• Ethics and integrity</li><li>• Types of digital drawing software</li><li>• Basic computer operation</li><li>• Composition rules</li><li>• Camera rules</li><li>• Art composition</li><li>• Designing concepts</li></ul>	<ul style="list-style-type: none"><li>• Drawing</li><li>• Use of digital pad</li><li>• Communication skills</li><li>• Team work</li><li>• Creativity</li><li>• Visualization</li><li>• Negotiation</li></ul>

**UNIT TITLE :** Develop character, background and props

**DESCRIPTOR:** This unit covers the competencies required to develop character & its props and background & its props for 2D animation following all the relevant standard procedures / specifications, ensuring safety practices at all times.

**CODE :** 2642-U2-L2

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Develop character and its props	<p>1.1 Select and use <b>tools and equipment</b> as per the job requirement following standard procedures</p> <p>1.2 Select and use <b>materials</b> as per the job requirement following standard procedures</p> <p>1.3 Read and interpret the scripts as per the job requirement following standard procedures</p> <p>1.4 Create thumbnails for characters and its props as per the script and visualization following standard procedures</p> <p>1.5 Create thumbnails digitally for characters and its props as per the script and visualization following standard procedures</p> <p>1.6 Create / develop expression sheet, posture and turnaround of characters as per the scripts, visualizations and direction following standard procedures</p> <p>1.7 Create colour scheme for the characters and its props as per scripts, visualization and direction following standards procedures</p> <p>1.8 Create costume for characters as per the scripts, visualization and direction following standard procedures</p> <p>1.9 Finalize the characters and its props as per the</p>

		direction following standard procedures
2. Develop background and its props	2.1	Read and interpret the scripts as per the job requirement following standard procedures
	2.2	Create thumbnails for background and its props as per the script, storyboard and visualization following standard procedures
	2.3	Create thumbnails digitally for background and its props as per the script, storyboard and visualization following standard procedures
	2.4	Develop layout art as per the storyboard following standard procedures
	2.5	Create colour scheme for the background and its props as per scripts, visualization and direction following standards procedures
	2.6	Finalize the background and its props as per the direction following standard procedures

### RANGE STATEMENT

Work may take place in an animation studio / art department or in a training center.

Performance of these unit is expected to be performed in accordance with following standards, rules & regulations:

- BICMA regulations
- Intellectual property rights

#### **Tools and equipment may include but not limited to:**

- |               |            |
|---------------|------------|
| • Scanner     | • Computer |
| • Photocopier | • Software |
| • Camera      |            |

#### **Materials may include but not limited to:**

- |                 |           |
|-----------------|-----------|
| • Paint brush   | • Colours |
| • Color pencils |           |

**Critical aspects applicable to these unit:**

- Demonstrate safe working practices at all times in accordance with OHS regulations.
- Create / develop expression sheet, posture and turnaround of characters as per the scripts, visualizations and direction following standard procedures
- Develop layout art as per the story board following standard procedures

<b>UNDERPINNING KNOWLEDGE</b>	<b>UNDERPINNING SKILLS</b>
<ul style="list-style-type: none"><li>• Ethics and integrity</li><li>• Types of digital drawing software</li><li>• Basic computer operation</li><li>• Composition rules</li><li>• Camera rules</li><li>• Art composition</li><li>• Designing concepts</li><li>• Colour theory</li><li>• Lighting and shading</li><li>• Anatomy and muscle study for character design</li></ul>	<ul style="list-style-type: none"><li>• Drawing</li><li>• Use of digital pad</li><li>• Communication skills</li><li>• Team work</li><li>• Creativity</li><li>• Visualization</li><li>• Negotiation</li></ul>



**UNIT TITLE :** Create 2D Animation.

**DESCRIPTOR:** This unit covers the competencies required to animate 2D character & its props and background & its props following all the relevant standard procedures / specifications, ensuring safe working practices at all times.

**CODE :** 2642-U3-L2

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Animate character and its props	1.1 Select and use required <b>tools and equipment</b> following standard procedures. 1.2 Set ratio of stage and frame rate as per the standard procedures 1.3 Import designated scene from storyboard as per the direction following standard procedures. 1.4 Create movement for the character as per the standard procedure 1.5 Import audio file /dialogue as per the job requirement following standard procedures. 1.6 Lip sync the character as per the audio following standard procedures. 1.7 Export the animation file in specified format for composition as per the standard procedures.
2. Animate background and its props	2.1 Select and use required tools and equipment following standard procedures. 2.2 Select and use materials as per the job requirement following standard procedures. 2.3 Set ratio of stage and frame rate as per the standard procedures 2.4 Import designated scene from storyboard as per the direction following standard procedures. 2.5 Create movement for background and its props

	as per the standard procedure
2.6	Export the animation file in specified format for composition as per the standard procedures.

<b>RANGE STATEMENT</b>	
Work may take place in an animation studio / art department or in a training center.	
Performance of these unit is expected to be performed in accordance with following standards, rules & regulations:	
<ul style="list-style-type: none"> <li>• BICMA regulations</li> <li>• Intellectual property rights</li> </ul>	
<b>Tools and equipment may include but not limited to:</b>	
<ul style="list-style-type: none"> <li>• High specs computer</li> <li>• Animation software</li> </ul>	<ul style="list-style-type: none"> <li>• Digital pad</li> <li>• Headphones</li> </ul>

<b>Critical aspects applicable to these unit:</b>
<ul style="list-style-type: none"> <li>• Demonstrate safe working practices at all times in accordance with OHS regulations.</li> <li>• Create movement for the character as per the standard procedure</li> <li>• Create movement for the background as per the standard procedure.</li> </ul>

<b>UNDERPINNING KNOWLEDGE</b>	<b>UNDERPINNING SKILLS</b>
<ul style="list-style-type: none"> <li>• Ethics and integrity</li> <li>• Principles of animation</li> <li>• Anatomy study</li> <li>• Acting</li> </ul>	<ul style="list-style-type: none"> <li>• Team work</li> <li>• Time management</li> <li>• Concentration</li> <li>• Persistence</li> </ul>

<ul style="list-style-type: none"><li>• Animation software</li><li>• Camera angle</li></ul>	<ul style="list-style-type: none"><li>• Patience</li><li>• Consistency</li><li>• Creativity</li><li>• visualization</li></ul>
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**UNIT TITLE :** Create 3D Animation.

**DESCRIPTOR:** This unit covers the competencies required to model 3D character, background & its props, animate 3D character & its props and background & its props following all the relevant standard procedures / specifications, ensuring safe working practices at all times.

**CODE :** 2642-U3-L2

<b>ELEMENTS OF COMPETENCE</b>	<b>PERFORMANCE CRITERIA</b>
1. Model 3D character, background and props	1.1 Read and interpret the scripts as per the job requirement following standard procedures 1.2 Create thumbnails for 3D characters, background and its props as per the script and visualization following standard procedures 1.3 Create thumbnails digitally for 3D characters, background and its props as per the script and visualization following standard procedures 1.4 Create / develop expression sheet, posture and turnaround of 3D characters as per the scripts, visualizations and direction following standard procedures 1.5 Create paint skin / texture scheme for the 3D characters, background and its props as per scripts, visualization and direction following standards procedures 1.6 Model character and costume for 3D characters as per the scripts, visualization and direction following standard procedures 1.7 <b>Blend shape</b> for 3D characters as per the script following standard procedures 1.8 Rig (rigging / bone set up) and bind skin the 3D characters following standard procedures
2. Animate 3D	2.1 Select and use required <b>tools and equipment</b>

character and its props	following standard procedures. 2.2 Create movement for the 3D character and its props as per storyboard following the standard procedure 2.3 Import audio file/dialogue as per the job requirement following standard procedures. 2.4 Lip sync the 3D character as per the audio following standard procedures. 2.5 Render the animation as per specified format, frame rate and aspect ratio for composition following standard procedures.
3. Animate background and its props	3.1 Create movement for background and its props as per the job requirement following standard procedure 3.2 Render the animation as per specified format, frame rate and aspect ratio for composition following standard procedures.

### RANGE STATEMENT

Work may take place in an animation studio or in a training center.

Performance of these unit is expected to be performed in accordance with following standards, rules & regulations:

- BICMA regulations
- Intellectual property rights

**Blend shape may include but not limited to:**

- Expression
- Lip sync

**Tools and equipment may include but not limited to:**

- High specs computer
- Animation software
- Headphones

**Critical aspects applicable to these unit:**

- Demonstrate safe working practices at all times in accordance with OHS regulations.
- Model character and costume for 3D characters as per the scripts, visualization and direction following standard procedures
- Create movement for the 3D character and its props as per storyboard following the standard procedure

<b>UNDERPINNING KNOWLEDGE</b>	<b>UNDERPINNING SKILLS</b>
<ul style="list-style-type: none"><li>• Ethics and integrity</li><li>• Principles of animation</li><li>• Anatomy study</li><li>• Acting</li><li>• Animation software</li><li>• Camera angle</li></ul>	<ul style="list-style-type: none"><li>• Team work</li><li>• Time management</li><li>• Concentration</li><li>• Persistence</li><li>• Patience</li><li>• Consistency</li><li>• Creativity</li></ul>



## **Annexure:**

### **1.1 National Competency Standards (NCS)**

National Competency Standards specify the skill, knowledge and attitudes applied to a particular occupation. Standards also specify the standards or criteria of performance of a competent worker and the various contexts in which work may take place. Standards provide explicit advice to assessors regarding the skill and knowledge to be demonstrated by candidates seeking formal recognition either following training or through work experience.

### **1.2 Purpose of National Competency Standards**

Competency Standards serve a number of purposes including:

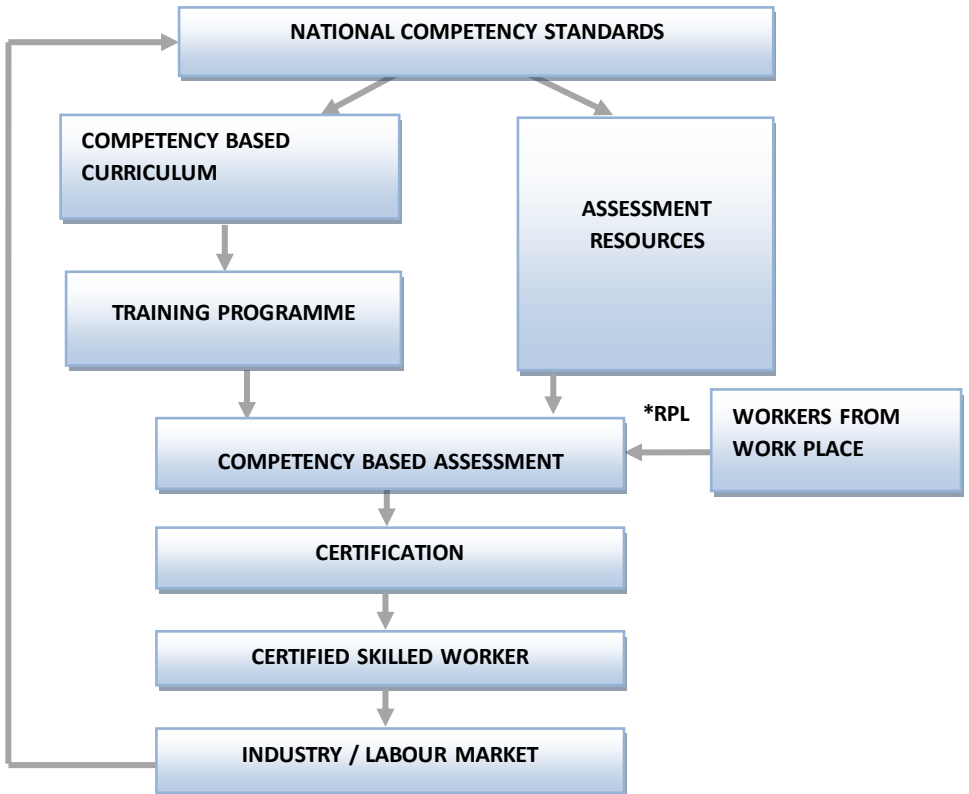
- Providing advice to curriculum developers about the skill and knowledge to be included in curriculum.
- Providing specifications to assessment resource developers about the skill, knowledge and attitudes within an occupation to be demonstrated by candidates.
- Providing advice to industry/employers about job functions, which in turn can be used for the development of job descriptions, performance appraisal systems and work flow analysis.



### 1.3 Bhutan Vocational Qualifications Framework (BVQF)

Bhutan Vocational Qualifications Framework is an agreed system of Assessing, Certifying and Monitoring nationally recognized qualifications for all learning in the VET sector against national standards, in training institutions, in the workplace, in schools or anywhere where learning takes place.

#### Components of the Bhutan Vocational Qualification Framework (BVQF)



\* RPL = Recognition of Prior Learning

## 1.4 BVQF Levels

The Bhutan Vocational Qualifications Framework has three levels classified based on the competency of the skilled workers. The three levels are:

- National Certificate Level 3 (NC 3) -Master Craftsman
- National Certificate Level 2 (NC 2) -Craftsman
- National Certificate Level 1 (NC 1) -Semi Skilled Worker

### BVQF Level Descriptors

The qualification levels are decided based on level descriptors. The detail of the qualification level descriptor is as follows:

#### National Certificate Level 1 (Semi skilled)

Carry out processes that:	Learning demand:	Responsibilities Which are applied:
<ul style="list-style-type: none"><li>• Are narrow in range.</li><li>• Are established and familiar.</li><li>• Offer a clear choice of routine responses.</li><li>• Involve some prioritizing of tasks from known solutions.</li></ul>	<ul style="list-style-type: none"><li>• Basic operational knowledge and skill.</li><li>• Utilization of basic available information.</li><li>• Known solutions to familiar problems.</li><li>• Little generation of new ideas.</li></ul>	<ul style="list-style-type: none"><li>• In directed activity.</li><li>• Under general supervision and quality control.</li><li>• With some responsibility for quantity and quality.</li><li>• With no responsibility for guiding others.</li></ul>

## National Certificate Level 2 (Craftsman)

Carry out processes that:	Learning demand:	Responsibilities which are applied:
<ul style="list-style-type: none"> <li>• Require a range of well-developed skills.</li> <li>• Offer a significant choice of procedures requiring prioritization.</li> <li>• Are employed within a range of familiar context.</li> </ul>	<ul style="list-style-type: none"> <li>• Some relevant theoretical knowledge.</li> <li>• Interpretation of available information.</li> <li>• Discretion and judgment.</li> <li>• A range of known responses to familiar problems</li> </ul>	<ul style="list-style-type: none"> <li>• In directed activity with some autonomy.</li> <li>• Under general supervision and quality checking.</li> <li>• With significant responsibility for the quantity and quality of output.</li> <li>• With some possible responsibility for the output of others.</li> </ul>

## National Certificate Level 3 (Master Craftsman)

Carry out processes that:	Learning demand:	Responsibilities which are applied:
<ul style="list-style-type: none"> <li>• Requires a wide range of technical or scholastic skills.</li> <li>• Offer a considerable choice of procedures requiring prioritization to achieve optimum outcomes.</li> <li>• Are employed in a variety of familiar and unfamiliar contexts.</li> </ul>	<ul style="list-style-type: none"> <li>• A broad knowledge base which incorporates some theoretical concepts.</li> <li>• Analytical interpretation of information.</li> <li>• Informed judgment.</li> <li>• A range of sometimes innovative responses to concrete but often unfamiliar problems.</li> </ul>	<ul style="list-style-type: none"> <li>• In self-directed activity.</li> <li>• Under broad guidance and evaluation.</li> <li>• With complete responsibility for quantity and quality of output.</li> <li>• With possible responsibility for the output of others.</li> </ul>

## **1.5 CODING USED FOR NATIONAL COMPETENCY STANDARDS**

The coding and classification system developed in Bhutan is logical, easy to use, and also aligned with international best practises. The Bhutanese coding and classification system is based on the International Standard Classification of Occupations, 2008 (ISCO-08) developed by the International Labour Organisation (ILO).

The coding of the National Competency Standards forms the basis of the identification code for the Vocational Education and Training Management Information System (VET – MIS) both in terms of economic sector identification and that of the individual standard.

Coding the individual unit competency standard is to identify the level in qualification package to which it belongs.

While packaging, in order to follow a logical order, only competency standards related to each other and following a logical sequence in terms of training delivery, from the simple to the complex, are clustered into a qualification packages.

## **1.6 ASSESSMENT GUIDE**

### **Form of assessments**

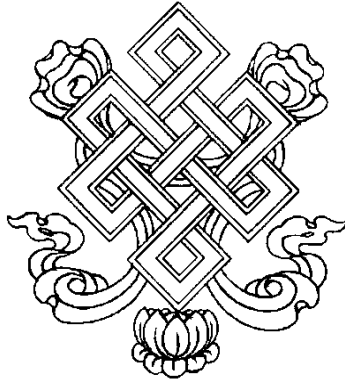
- Continuous assessment together with collected evidence of performance will be used.
- Evidence of the performance shall be based on practical demonstration.
- Knowledge can be assessed through diagrams, in writing or orally (viva-voce).

### **Assessment context**

- Competency may be assessed in the actual work place or in a simulated workplace setting.

### **Assessment condition**

- The candidate shall have access to all required tools, equipment, materials and documents.
- Candidate must complete the assessment in industry accepted time frame.



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