



COMPETENCY STANDARD FOR 3D ANIMATION FOR FREELANCING (3D Character Modeling)

(ICT Sector)

Level: 03

Competency Standard Code: ICTCS030-L3V1

National Skills Development Authority Prime Minister's Office, Bangladesh

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Introduction

The National Skills Development Authority aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program.

"3D Animation for Freelancing (3D Character Modeling)" is selected as one of the priority occupations of Information and Communication Technology Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of students enrolled in skills sector. Students who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in **Information and Communication Technology** sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- I unit code
- unit descriptor
- lelements and performance criteria
- variables and range statement
- I curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide

Competency Standards for National Skill Certificate -3 in 3D Animation for Freelancing (3D Character Modeling) in ICT Sector

Level Descriptors of NSQF (BNQF 1-6)

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self- motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
l –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS - Competency Standard CSS - Cascade style sheet - Hypertext markup language HTML ISC - Industry Skills Council **NSDA** - National Skills Development Authority **NSQF** - National Skills Qualifications Framework - Occupational Safety and Health OSH - Personal Protective Equipment PPE - Standards and Curriculum Validation Committee SCVC TSC - Technical sub-committee STP - Skills Training Provider SOP - Standard Operating Procedures UoC - Unit of Competency

Approval of Competency Standard

Members of the Approval Committee:

Member	Signature
Dulal Krishna Saha Executive Chairman (Secretary) National Skills Development Authority	Q) 8 09/2021
Md. Nurul Amin	
Member (Admin & Finance) Member (Registration & Certification) Member (Coordination & Assessment) Joint Secretary National Skills Development Authority	OB. 89. 21
Alif Rudaba Member (Planning & Skills Standard) Joint Secretary National Skills Development Authority	Al 26/02/2023

Dulal Krishna Saha

Executive Chairman (Secretary)

National Skills Development Authority

:Date

Competency Standards for National Skill Certificate – Level 2 in 3D Animation for Freelancing (3D Character Modeling) in ICT Sector

Course Structure

SL		Unit Code and Title	UoC Level	Nominal (Hours)
Generic Competencies		30		
1	GU005L3V1	Carry out workplace interaction in English	3	15
2	GU013L3V1	Carry out communication with clients	3	15
Secto	r Specific Competen	cies		35
1	SUICT004L3V1	Comply with Ethical Standards in IT Workplace	3	15
2	SUICT005L3V1	Acquire Soft Skills in Customer Dealing	3	20
Occu	pation Specific Comp	petencies		235
1	ICT3D008L3V1	Perform pre-production activities for 3D characters creation	3	50
2	ICT3D009L3V1	Produce 3D characters	3	145
3	ICT3D010L3V1	Post production activities for 3D characters	3	40
	T	otal Nominal Learning Hours		300

Units & Elements at Glance

Generic Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
GU005L3V1 Carry out workplace interaction in English	 Interpret workplace communication and etiquette Interpret Workplace Documents Participate in workplace meetings and discussions Practice professional ethics at workplace 	15	
GU013L3V1	Carry out communication with clients	 Interpret client-based communication and etiquette Prepare documents for endeavour/ working environment/ platform Conduct communication 	15
		Total Hours:	30

Sector Specific Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SUICT004L3V1	Comply to ethical standards in IT workplace	 Uphold the requirements of clients Deliver quality products and services Maintain professionalism at workplace Maintain workplace code of conduct. 	15
SUICT008L3V1	Acquire Soft Skills in Customer Dealing	 Understand customer dealing operations Identify soft skills requirements in the workplace Demonstrate required gesture and posture during customer dealing 	20
		Total Hours:	35

Occupation Specific Competencies

Code	Unit of Competency	Elements of Competency	Duration (Hours)
ICT3D008L3V1	Perform pre-production activities for 3D Character Modeling	Determine 3D character creation requirements Assess technical requirement for 3D character creation	60
ICT3D009L3V1	Develop 3D Character Modeling	 Modeling 3D characters UV 3D characters Texturing 3D characters 	90
ICT3D010L3V1	Perform Post-Production Activities for 3D Character Modeling	 Basic lighting and shading technique Finalization of 3D characters (color grading, edit, rendering) 	55
		Total Hour:	205

Generic Competencies

Unit Code and Title	GU005L3V1: Carryout Workplace Interaction in English
Nominal Hours	15 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to carry out workplace interaction. It specifically includes – interpreting workplace communication and etiquette; reading and understand workplace documents; participating in workplace meetings and discussions; and practicing professional ethics at workplace.
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components
Interpret workplace communication and etiquette	 1.1 Workplace code of conducts are interpreted as per organizational guidelines 1.2 Appropriate lines of communication are maintained with supervisors and colleagues 1.3 Workplace interactions are conducted in a <u>courteous manner</u> to gather and convey information 1.4 Questions about routine <u>workplace procedures and matters</u> are asked and responded as required
Interpret Workplace Documents	 2.1 Workplace documents are interpreted as per standard. 2.2 Assistance is taken to aid comprehension when required from peers / supervisors 2.3 Visual information / symbols / signage's are understood and followed 2.4 Specific and relevant information are accessed from appropriate sources 2.5 Appropriate medium is used to transfer information and ideas
Participate in workplace meetings and discussions	 3.1 Team meetings are attended on time and followed meeting procedures and etiquette 3.2 Own opinions are expressed and listened to those of others without interruption 3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes
Practice professional ethics at workplace	 4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others 4.2 Tasks are performed in accordance with workplace procedures 4.3 Confidentiality is respected and maintained 4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided
Range of Variables	
Variable	Range (may include but not limited to):

Courteous Manner	1.1 Effective questioning 1.2 Active listening
1. Courteous Manner	1.3 Speaking skills
	2.1 Notes
	2.2 Agenda
	2.3 Simple reports such as progress and incident reports
	2.4 Job sheets
2. Workplace Procedures and	2.5 Operational manuals
Matters	2.6 Brochures and promotional material
	2.7 Visual and graphic materials
	2.8 Standards
	2.9 OSH information
	2.10 Signs
	3.1 HR Department
3. Appropriate Sources	3.2 Managers
	3.3 Supervisors
Evidence Guide	
	entic, valid, sufficient, reliable, consistent and recent and meet the
requirements of the current vers	sion of the Unit of Competency
	Assessment required evidence that the candidate:
	1.1 followed workplace code of conducts is as per organizational
1. Critical Aspects of	guidelines
Competency	1.2 maintained workplace documents as per standard
	1.3 followed workplace instructions and symbols
	1.4 followed and implemented meeting outcomes
	2.1 Workplace communication and etiquette
2. Underpinning Knowledge	2.2 Workplace documents, signs and symbols
	2.3 meeting procedure and etiquette
	3.1 Interpreting performance of workplace communication and
	etiquette
	3.2 Interpreting workplace instructions and symbol
3. Underpinning Skills	3.3 Interpreting workplace code of conducts is as per organizational
	guidelines
	3.4 Interpreting workplace documents as per standard
	3.5 Interpreting and implementing meeting outcomes
	4.1 Commitment to occupational health and safety4.2 Promptness in carrying out activities
	4.2 Promptness in carrying out activities4.3 Sincere and honest to duties
	4.4 Environmental concerns
4. Underpinning Attitudes	4.5 Eagerness to learn
	4.6 Tidiness and timeliness
	4.7 Respect for rights of peers and seniors in workplace
	4.8 Communication with peers and seniors in workplace
	The following resources must be provided:
5. Resource Implications	
	5.1 Relevant tools, Equipment, software and facilities needed to

	perform the activities. 5.2 Required learning materials.
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of Assessment	 7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor

National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification must accredit training Providers. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	GU013L3V1: Carryout Communication with Clients
Nominal Hours	15 Hours
	This unit covers the knowledge, skills and attitudes required to carry out workplace interaction.
Unit Descriptor	It specifically includes interpreting workplace communication and etiquette; reading and understand workplace documents; participating in workplace meetings and discussions; and practicing professional ethics at workplace.
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components
Interpret client-based communication and etiquette	 1.1 Code of conduct of communication are interpreted as per working environment/platform 1.2 Manners and etiquette of communication is interpreted as 1.3 Questions about routine working environment/platformprocedures and matters are explained as required
2. Prepare documents for endeavor/working environment/platform	 2.1 Relevant <u>documents</u> are prepared for effective communication with work environment 2.2 <u>Validated sources</u> are identified as per client's requirements 2.3 Documents are validated by the authentic sources as per client's requirements 2.4 Documents are submitted as per standard procedure
3. Conduct communication	 3.1 Appropriate means/method/way of communication are maintained as per working environment/platform 3.2 Channels of communication are identified and followed 3.3 Communication is conducted in a courteous manner to gather and convey information 3.4 Appropriate non-verbal communication is used as required
Range of Variables	
Variable	Range (may include but not limited to):
1. Courteous Manner	1.1 Effective questioning1.2 Active listening1.3 Speaking skills

	2.1 Notes
	2.2 Agenda
	2.3 Simple reports such as progress and incident reports
2. Workplace Procedures and	2.4 Job sheets
	2.5 Operational manuals
Matters	2.6 Brochures and promotional material
	2.7 Visual and graphic materials
	2.8 Standards
	2.9 OSH information
	2.10 Signs
	3.1 Verbal
3. Way of Communication	3.2 Written
o. way or communication	3.3 Online communication
	4.1 Marketplace messenger 4.2 Zoom
	4.3 Google meet
4. Channels of	4.4 Microsoft team
communication	4.5 Go meeting
communication	4.6 Boithok
	4.7 Webex
	4.8 Skype
	4.9 WhatsApp
	5.1 Personnel identification document
5. Documents	5.2 Portfolio
5. Documents	5.3 Financial document
	5.4 Task proposal
	6.1 Chamber of commerce
	6.2 Related association
C V III . I	6.3 High commission
6. Validated sources	6.4 Related Bank
	6.5 Local authority
	6.6 Related legal entities
Evidence Guide	
The evidence must be author	entic, valid, sufficient, reliable, consistent and recent and meet the
	sion of the Unit of Competency
	Assessment required evidence that the candidate:
Critical Aspects of Competency	1.1 Interpreted client-based communication and etiquette
	1.2 Prepared documents for
Competency	
Competency	endeavour/working/environment/platform

	1.1 Working platform
Underpinning Knowledge	1.2 Terms and condition in platform
	1.3 Documents for communication
	1.4 Validated sources
	1.5 Way of communication
	1.6 Channel of communication
	1.7 Courteous manner
	3.1 Handling personal computer/laptop
	3.2 Interpreting communication needs
2. Underpinning Skills	3.3 Using channels of communication
	3.4 Logging with online platform
	3.5 Interpreting terms and condition
	1.1 Commitment to occupational health and safety
	1.2 Promptness in carrying out activities
	1.3 Sincere and honest to duties
4. Underpinning Attitudes	1.4 Environmental concerns
in a nacipining / ititades	1.5 Eagerness to learn
	1.6 Tidiness and timeliness
	1.7 Respect for rights of peers and seniors in workplace
	1.8 Communication with peers and seniors in workplace
	The following resources must be provided:
2 Bassinas Inglications	4.1 Relevant tools, Equipment, software and facilities needed to
2. Resource Implications	perform the activities.
	4.2 Required learning materials.
	Methods of assessment may include but not limited to:
5 M. J. J. C.A.	3.1 Written Test
5. Methods of Assessment	3.2 Demonstration
	3.3 Oral Questioning
	3.4 Portfolio
	7.1 Competency assessment must be done in a NSDA accredited
4. Context of Assessment	assessment centre
4. Context of Assessment	7.2 Assessment should be done by an NSDA certified/ nominated
	assessor

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under National Skills Qualification (NSQF). Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Sector Specific Competencies

Unit Code and Title Nominal Hours Unit Descriptor Elements of Competency		SUICT004L3V1: Comply to Ethical Standards in IT Workplace 15 Hours		
		delive	ecifically includes upholding the requirements of clients, ering quality products and services, maintaining ssionalism at workplace, and maintaining workplace code induct.	
		Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables		
		1.	Uphold the	1.1
	requirements of clients	1.2	Confidentiality of information is maintained in	
			accordance with workplace policies / organizational	
			policies/national legislation	
		1.3	Potential conflicts of interest are identified and involved	
			parties of potential conflicts are notified	
		1.4	Proprietary rights of client/customer are asserted	
2.	Deliver quality	2.1.	Products and services are provided according to the	
	products and services		clients' requirements	
		2.2.	Work is completed as per standards	
		2.3.	Quality processes are implemented when developing	
2	Maintain	2.1	products and services	
3.	professionalism at	3.1	Work processes are delivered as per standards Skills, knowledge and qualifications are presented in a	
	workplace	3.2	professional manner	
	, op.uec	3.3	Services and products developed by self and others are	
			delivered as per workplace standard	
		3.4	Unbiased and objective information are provided to	
			clients	
		3.5	Realistic estimates for time, cost and delivery of outputs	
	11.	1.1	are presented during negotiation	
4.	Maintain workplace	4.1	Workplace code of conduct are interpreted	
	code of conduct	4.2	Workplace code of conduct is followed	

Variables	Range (may include but not limited to):		
	entic, valid, sufficient, reliable, consistent and recent and meet the version of the Unit of Competency		
	Assessment required evidence that the candidate:		
	1.1 asserted proprietary rights of client/customer		
	1.2 completed work as per standards.		
Critical aspects of	1.3 implemented quality processes when developing		
competency	products and services		
competency	1.4 delivered services and products developed by self and others		
	1.5 provided unbiased and objective information to clients		
	1.6 followed workplace code of conduct		
	2.1. Corporate code of confidentiality of information		
	2.2. Organizational policies		
	2.3. National legislation and workplace policies in relation to IT sector		
2. Underpinning	2.4. Law and regulations pertaining to proprietary rights		
knowledge	2.5. Quality processes for products and services		
	2.6. Procedure of provided to client information		
	2.7. Method of estimating for time, cost and delivery products		
	and services		
	2.8. Workplace code of conduct in IT sector		
	3.1. Upholding client's dignity and honor		
	3.2. Planning for own work activities3.3. Handling tools and equipment		
3. Underpinning skills	3.3. Handling tools and equipment3.4. Interpreting clint's requirements		
5. Olderpinning skills	3.5. Maintaining green practices		
	3.6. Communicating in the workplaces		
	3.7. Following workplace code of conduct		
	4.1 Commitment to occupational health and safety		
	4.2 Promptness in carrying out activities		
	4.3 Sincere and honest to duties		
4. Underpinning attitudes	4.4 Environmental concerns		
4. Onderprining attitudes	4.5 Eagerness to learn		
	4.6 Tidiness and timeliness		
	4.7 Respect for rights of peers and seniors in workplace		
	4.8 Communication with peers and seniors in workplace		
	The following resources must be provided:		
5. Resource Implications	5.1 Well-equipped computer lab with audio visual		
	accessories		

	5.2 Dedicated internet facilities
	5.3 Relevant tools, Equipment, software and facilities needed
	to perform the activities
	5.4 Uninterrupted powers supply source
	5.5 Required learning materials
6. Methods of assessment	6.1 Written Test
	6.2 Demonstration
	6.3 Oral Questioning
	6.4 Portfolio
7. Context of assessment	7.1 Competency assessment will be done in NSDA accredited center or in online platform.
	7.2 Assessment should be done by NSDA certified/ nominated assessor.

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	SSU05I08L3V1: Acquire Soft Skills in Customer Dealing		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to acquire soft skills in customer dealing. It specifically includes – understand customer dealing operations; identify soft skills requirements in the workplace; and demonstrate required gesture and posture during customer dealing.		
Nominal Hours	20 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
Understand customer dealing operations	 1.1 Customer dealing operation is interpreted 1.2 Duties of a customer service executive are identified 1.3 <u>Customer dealing skills</u> are interpreted 		
Identify soft skills requirements in the workplace	Meaning of soft skills is clearly stated and key components are listed Soft skill requirements are identified in the workplace with specific emphasis on situational requirements		
Demonstrate required gesture and posture during customer dealing	3.1 Importance of body language and posturing during customer interactions is summarised3.2 Dos and don'ts of body language during customer interaction are recognised		
Range of Variables			
Variable	Range (may include but not limited to):		
1. Customer dealing skills	1.1 Patience 1.2 Attentiveness 1.3 Clear communication skill 1.4 Knowledge of the product 1.5 Ability to use "positive language" 1.6 Acting skill 1.7 Time management skill 1.8 Ability to "read" customers 1.9 A claiming presence 1.10 Goal-oriented focus 1.11 Ability to handle surprises 1.12 Persuasion skills 1.13 Tenacity 1.14 Closing ability 1.15 Willingness to learn		

	2.1	Personality traits
	2.2	Social grace
8	2.3	Facility with language
	2.4	Friendliness
	2.5	Personal habits
	2.6	Optimism
2. Soft skills	2.7	Teamwork
Z. Soft Skills	2.8	Time management
	2.9	Stress management
	2.10	Responsibility
	2.11	Self-esteem
	2.12	Sociability
	2.13	Self-management
	2.14	Communication & negotiation

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.

Critical aspects of competency	1.1 Identified duties of a customer dealing agent1.2 Applied soft skills at work1.3 Demonstrated required gesture and posture at work
2. Underpinning knowledge	2.1 Scope and structure of customer dealing2.2 Duties of a call centre agent2.3 Soft skills techniques2.4 Required gesture and posture for an agent
3. Underpinning skills	3.1 Interpreting customer dealing skills3.2 Applying soft skills at workplace3.3 Demonstrating required gesture and posture at workplace
4. Underpinning attitude	 4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace

The following resources must be provided:
1
5.1 Workplace (simulated or actual)
5.2 Environment on internet
5.3 Course materials
5.4 Laptops / computers
5.5 Projector
Methods of assessment may include but not limited to:
6.1 Written test
6.2 Oral questioning
6.3 Demonstration
6.4 Portfolio
7.1 Competency assessment must be done in a training centre or in an actual or simulated work place after completion of the training module
7.2 Assessment should be done by NSDA certified assessor

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Occupation Specific Competencies

Unit Code and Title	ICT3D008L3V1: Perform Pre-Production Activities for 3D Character Modeling 70 Hours		
Nominal Hours			
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required perform pre-production activities for 3D Character Modeling. It specifically includes determining 3D character creating and the second		
	requirements, and assessing technical requirement for 3D character creation.		
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables		
1. Determine 3D character	1.1 Development software is selected as per requirement of		
creation requirements	creative brief.		
	1.2 3D Characters are recognized from creative brief.		
	1.3 Requirements for <u>character parts</u> are determined from		
	creative brief 1.4 Character props are determined as per requirement.		
	 1.4 <u>Character props</u> are determined as per requirement. 1.5 Character pose and <u>style</u> are determined as per requirement. 		
2. Assess technical	2.1 Character model sheet are collected and created.		
requirement for 3D	2.2 Lighting and texturing on character are recognized.		
character creation	2.3 Camera composition on characters is identified.		
	2.4 Rendering requirements are determined.		
	2.5 Reference images for characters are gathered as per		
	requirement.		
Range of Variables			
Variables	Range (may include but not limited to):		
1. Software	1.1 3D Max		
	1.2 Maya		
	1.3 Cinema 4D		
	1.4 Blender		
2 Character parts	1.5 ZBrush		
2. Character parts	2.1 Head 2.2 Hair		
	2.3 Ear		
	2.4 Eye		
	2.5 Mouth and leaps		

2.6 Skin
2.7 Shoulder
2.8 Hands and fingers
2.9 Body
2.10 Legs
3.1 Cap
3.2 Cloth
3.3 Armors
3.4 Watch/Band
3.5 Shoes
3.6 Waist pack and utilities
4.1 Hair style
4.2 Skin tone
4.3 Costumes
4.4 Expressions
4.5 Mannerism
5.1 Front view
5.2 Back view
5.3 Profile view
5.4 Identical pose

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency

1. Critical aspects of	1.1 Determined 3D character creation requirements		
competency	1.2 Assessed technical requirement for 3D character creati		
	2.1 Creative brief		
2. Undaminning knowledge	2.2 Character		
2. Underpinning knowledge	2.3 Blue print		
	2.4 Technical requirement		
3. Underpinning skills	3.1 Working with character development software.		
	3.2 Referencing images.		
	3.3 Collecting resources required for character modeling		
	4.1 Commitment to occupational health and safety		
	4.2 Promptness in carrying out activities		
	4.3 Sincere and honest to duties		
	4.4 Environmental concerns		
4. Required attitude	4.5 Eagerness to learn		
	4.6 Addressing and accepting feedback		
	4.7 Tidiness and timeliness		
	4.8 Respect for rights of peers and seniors in workplace		
	4.9 Communication with peers and seniors in workplace		

	The following resources must be provided:
	5.1 Well-equipped computer lab with audio visual accessories
5 D I'	5.2 Uninterrupted internet facilities
5. Resource Implication	5.3 Relevant tools, Equipment, software and facilities needed to perform the activities
	5.4 Uninterrupted powers supply source
	5.5 Required learning materials
	Methods of assessment may include but not limited to:
	6.1 written test
6. Methods of assessment	6.2 demonstration
	6.3 oral questioning
	6.4 portfolio
5 0	7.1 Competency assessment will be done in NSDA accredited center or in online platform
7. Context of assessment	7.2 Assessment should be done by NSDA certified/ nominated
	assessor

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	ICT3D009L3V1: Develop 3D Character Model		
Nominal Hours	90 Hours		
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to develop 3D Character Model.		
Cilit Descriptor	It specifically includes creating 3D character model, mapping UV and texturing 3D character model and creating character rigging.		
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables		
1 Create 3D character	1.1 Software for 3D Character Modeling/Sculpting is selected		
models	and used as per standard procedure.		
	1.2 Base mesh is created using poly modeling technique.		
	1.3 Base body is shaped out with basic proportions.		
	1.4 Character's <u>head</u> and hand is modelled with a focus on sculpting with efficient topology.		
	1.5 <u>Character props</u> are blocked out based on concept art and visual design.		
	1.6 Character costume is created using costume design software .		
2 Map UV and texture 3D	2.1 UV map of the model is created.		
character model	2.2 Texturing is applied on head.		
	2.3 <u>Texture maps</u> for the costume elements and armor pieces are painted using <u>appropriate software</u> .		
	2.4 Character model is presented to relevant personnel for inputs and admitted feedback.		
	2.5 Realistic rendering is performed to check the character models.		
3 Create character rigging	3.1 Character joints and skeleton is created3.2 Inverse kinematics/Forward kinematics (IK/FK) are created		
	3.3 Controllers and attributes are created3.4 Skin binding is applied3.5 Skin weight painting is adjusted		
Range of Variables	3.6 Pose morphing is created		
Variables	Range (may include but not limited to):		
Software for 3D Character	1.1 3D Max		
	1.2 Maya		

Modeling/Sculpting	
2.1 Hair 2.2 Ears 2.3 Noses 2.4 Lips 2.5 Fingers 2.6 Facial muscles 3.1 Cap	
2.2 Ears 2.3 Noses 2.4 Lips 2.5 Fingers 2.6 Facial muscles 3.1 Cap	
2.2 Ears 2.3 Noses 2.4 Lips 2.5 Fingers 2.6 Facial muscles 3.1 Cap	
2.4 Lips 2.5 Fingers 2.6 Facial muscles 3.1 Cap	
2.5 Fingers 2.6 Facial muscles 3.1 Cap	
2.6 Facial muscles 3.1 Cap	
3. Character props 3.1 Cap	
5. Character brobs	
3.2 Cloth	
3.3 Armors	
3.4 Watch/Band	
3.5 Shoes	
3.6 Waist pack and utilities	
4. Create character rigging 4.1 Clo3D	
4.2 Marvelous designer	
5. Texture maps 5.1 Defuse map	
5.2 Reflection map	
5.3 Refraction map	
5.4 Displacement map	
5.5 Normal map	
5.6 AO map	
5.7 IOR	
6. Appropriate software 6.1 Photoshop	
6.2 Substance painter	
6.3 Foundry mari	

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency

Critical aspects of	1.1	Created 3D character models
competency	1.2	Mapped UV and textured 3D character model
	2.1	Moodboard
	2.2	Storyboard
2. Underpinning knowledge	2.3	Set
	2.4	UV mapping of 3D model
	2.5	Texture
	2.6	Camera composition
	3.1	Working with 3D Character Modeling software
3. Underpinning skills	3.2	Setting camera composition
	3.3	Rendering created work

	4.1 Commitment to occupational health and safety
	4.2 Promptness in carrying out activities
	4.3 Sincere and honest to duties
4. Required attitude	4.4 Environmental concerns
	4.5 Eagerness to learn
	4.6 Addressing and accepting feedback
	4.7 Tidiness and timeliness
	4.8 Respect for rights of peers and seniors in workplace
	4.9 Communication with peers and seniors in workplace
	The following resources must be provided:
5. Resource Implication	
	5.1 Well-equipped computer lab with audio visual accessories
	5.2 Uninterrupted internet facilities
	5.3 Relevant tools, Equipment, software and facilities needed to
	perform the activities
	5.4 Uninterrupted powers supply source
	5.5 Required learning materials
	6.1 Written test
6. Methods of assessment	6.2 Demonstration
or assessment	6.3 Oral questioning
	6.4 Portfolio
	7.1 Competency assessment will be done in NSDA accredited
7. Context of assessment	center or in online platform
7. Context of assessment	7.2 Assessment should be done by NSDA certified/ nominated
	assessor

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Unit Code and Title	ICT3D0010L2V1: Perform Post-Production Activities for 3D Character Modeling
Nominal Hours	50 hours
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to perform post-production activities for 3D Character Modeling.
	It specifically includes applying basic lighting and shading technique, and finalizing 3D character model.
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variable
Apply basic lighting and shading technique	1.1 Project settings for Character modelling are confirmed as per design specification.
	1.2 <u>Lighting</u> is added to the model according to creative brief.
	1.3 <u>Color grading</u> is applied to character model as per requirement.
	1.4 Character model is saved for animation.
2. Finalize 3D character model	2.1 Character models are reviewed to assess creative solutions with design specifications, appropriateness of users audience and technical feasibility.
	2.2 Additional requirements or modifications to overall designs are discussed and confirmed with relevant personnel.
	2.3 Feedback is incorporated as per standard procedure.
	2.4 Final character model is submitted as per required formal and medium.
Range of Variables	
Variable	Range (May include but not limited to:)
1. Lighting	1.1 Studio light1.2 Exterior light
2. Color Grading	2.1 White balance2.2 Color correction/balance
	2.3 Color preset 2.4 Color space
Evidence Guide	

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

7. Critical aspects of	444 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
100	1.1 Apply basic lighting and shading technique
competency	1.2 Finalize 3D character model
8. Underpinning knowledge	
	2.2 Design specification
	2.3 Look development
9. Underpinning skill	3.1. Adding lighting
	3.2. Applying visual effects
	3.3. Applying color grading
	3.4. Applying sound and music
	3.5. Submitting final product
10. Required attitude	1.1 Commitment to occupational health and safety
	1.2 Promptness in carrying out activities
	1.3 Sincere and honest to duties
	1.4 Environmental concerns
	1.5 Eagerness to learn
	1.6 Addressing and accepting feedback
	1.7 Tidiness and timeliness
	1.8 Respect for rights of peers and seniors in workplace
	1.9 Communication with peers and seniors in workplace
11. Resource implication	The following resources must be provided:
	5.1 Well-equipped computer lab with audio visual
	accessories
	5.2 Uninterrupted internet facilities
	5.3 Relevant tools, Equipment, software and facilities needed
	to perform the activities
	5.4 Uninterrupted powers supply source
	5.5 Required learning materials
12. Methods of assessment	6.1 Demonstration with oral questioning
	6.2 Direct observation
	6.3 Written test
	6.4 Portfolio
	7.1 Competency assessment will be done in NSDA
12 C-1-1-5	accredited center or in online platform
13. Context of assessment	7.2 Assessment should be done by NSDA certified/
	nominated assessor

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Development of Competency Standard by Technical Sub-Committee (TSC)

The Competency Standards for National Skills Certificate in **3D Animation for Freelancing (3D Character Modeling)** Level-3 Qualification is developed by TSC during August 8-12, 2021.

Respectable members:

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4.	Dr.Shaikh Muhammad Allayear, Associate Professor and Head, Dept. of Multimedia and Creative Technology. Daffodil International University	Member
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6.	Rabi Hasan, Art Director, Havas Ipositive Communication Ltd.	Member
7.	Md. Parvez Alamgir, Manager, Client Service	Member
8.	Rumman Uddin Ahamed, Head of Business Development, Dhanshiri Communication Limited	Member
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10.	Shahrin Ara, Freelancer	Member
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Validation of Competency Standard by SCVC

The Competency Standards for National Skills Certificate in **3D Animation for Freelancing** (**3D Character Modeling**), is validated by SCVC on Aug 23-24, 2021 and approved by NSDA.

Respectable members of the SCVC:

	VIDEO ANIMATION FOR FREELANCER	
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2.		Member
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This Competency Standard for 3D Animation for Freelancing (3D Character Modeling) is

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industry in order for individuals who graduated through the established standard via

competency-based assessment to be suitably qualified for a relevant job.

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