



# FOR WEB DESIGN

(ICT Sector)

Level: 3

Competency Standard Code: ICTCS0005L3V1

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Introduction

The National Skills Development Authority (NSDA) aims to enhance an individual's

employability by certifying competiveness 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 programme. "Web Design" 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 trainees enrolled in TVET. Trainees who successfully pass the

assessment will receive a qualification in the National Technical and Vocational

Qualification Framework (NTVQF) 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.

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#### 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 a 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
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

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
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide

#### Competency Standards for Web Design, Level- 3 in ICT Sector

# **NTVQF** with Job Classifications

NTVQF LEVELS	EDUC			
	Pre-Vocation Education	Vocational Education	Technical Education	Job Classification
NTVQF 6			Diploma in engineering or equivalent	Middle Level Manager Sub Assistant Engr. etc
NTVQF 5		National Skill Certificate 5 (NSC 5)		Highly Skilled Worker / Supervisor
NTVQF 4		National Skill Certificate 4 (NSC 4)		Skilled Worker
NTVQF 3		National Skill Certificate 3 (NSC 3)		Semi-Skilled Worker
NTVQF 2		National Skill Certificate 2 (NSC 2)		Basic Skilled Worker
NTVQF 1		National Skill Certificate 1 (NSC 1)		Basic Worker
Pre-Voc 2	National Pre-Vocation Certificate 2 (NPVC 2)			Pre-Vocation Trainee
Pre-Voc 1	National Pre-Vocation Certificate 1 (NPVC 1)			Pre-Vocation Trainee

# **Annex 1: NTVQF Level Descriptors**

NTVQF Level	Knowledge	Skill	Responsibility	Job Class.
6	Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge	Specialised and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems	Mange a team or teams in workplace activities where there is unpredictable change     Identify and design learning programs to develop performance of team members	Supervisor / Middle Level Manager / Sub Assistant Engr. etc.
5	Very broad knowledge of the underlying, concepts, principles, and processes in a specific study area	Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas.	Take overall responsibility for completion of tasks in work or study Apply past experiences in solving similar problems	Highly Skilled Worker / Supervisor
4	Broad knowledge of the underlying, concepts, principles, and processes in a specific study area	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	Take responsibility, within reason, for completion of tasks in work or study Apply past experiences in solving similar problems	Skilled Worker
3	Moderately broad knowledge in a specific study area.	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	Work or study under supervision with some autonomy	Semi-Skilled Worker
2	Basic underpinning knowledge in a specific study area.	Basic skills required to carry out simple tasks	Work or study under indirect supervision in a structured context	Basic Skilled Worker
1	Elementary understanding of the underpinning knowledge in a specific study area.	Limited range of skills required to carry out simple tasks	Work or study under direct supervision in a structured context	Basic Worker
Pre-Voc 2	Limited general knowledge	Very limited range of skills and use of tools required to carry out simple tasks	Work or study under direct supervision in a well-defined, structured context.	Pre-Vocation Trainee
Pre-Voc 1	Extremely limited general knowledge	Minimal range of skills required to carry out simple tasks	Simple work or study exercises, under direct supervision in a clear, well defined structured context	Pre-Vocation Trainee



#### List of Abbreviations

NSDA - National Skills Development Authority

CS - Competency Standard

ILO - International Labor Organization

ISC - Industry Skills Council

NPVC - National Pre-Vocation Certificate

NTVQF - National Technical and Vocational Qualifications Framework

SCVC - Standards and Curriculum Validation Committee

TVET - Technical Vocational Education and Training

UoC - Unit of Competency

STP - Skills Training Provider

OSH - Occupational Safety and Health

PPE - Personal Protective Equipment

SOP - Standard Operating Procedures

#### Members of the Approval Committee:

Member	Signature
Dulal Krishna Saha Executive Chairman (Secretary) National Skills Development Authority (NSDA)	0,5.12.20
Mohammad Rezaul Karim Member (Skills Standard & Certification) Additional Secretary National Skills Development Authority (NSDA)	(20 15.12.20
Md. Nurul Amin Member (Admin & Finance) Joint Secretary National Skills Development Authority (NSDA)	Clums 15.12.20
Alif Rudaba Member (Planning & Research) and Member (Coordination & Evaluation) Joint Secretary National Skills Development Authority (NSDA)	AM_ 15,12,2020

0) 5.12.20

**Dulal Krishna Saha** 

Executive Chairman (Secretary)

National Skills Development Authority (NSDA)

Date:

# Competency Standards for Web Design, Level – 3 in ICT Sector Course Structure

SL	UoC Level	Nominal Hours		
Generic Competencies			30	
1	GU002L2V1	Apply Occupational Safety and Health (OSH) Practices at Workplace	2	15
2	GU005L3V1	Carry out workplace interaction in English	3	15
Sec	tor Specific Comp	petencies		70
3	SUICT001L2V1	Operate a Personal Computer and Use Application programs	2	15
4	SUICT002L2V1	Operate office application software	2	25
5	SUICT003L2V1	Access Information using Internet and electronic mail	3	15
6	SUICT004L2V1	Comply to Ethical Standards in IT Workplace	3	15
Occ	cupation Specific	Competencies		260
7	OUWD001L3V1	Setup Web design environment	3	20
8	OUWD002L3V1	Work with HTML	3	40
9	OUWD003L3V1	Work with CSS	3	20
10	OUWD004L3V1	Perform Design to HTML	3	40
11	OUWD005L3V1	Work With basic JavaScript & jQuery	3	40
12	OUWD006L3V1	Work with Front-end Framework	3	60
13	OUWD007L3V1	Work with CMS	3	40
		Total Duration (	Hours)	360



# Units & Elements at glance

#### **Generic Competencies**

Code	Unit of Competency	Elements of Competency	Nominal Hours
GU002L2V1	Apply Occupational Safety and Health (OSH) Practices at Workplace	Identify, control and report     OSH hazards     Conduct work safely     Follow emergency response procedures     Maintain and improve health and safety in the workplace	15
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



# **Sector Specific Competencies**

Code	Unit of Competency	1. Elements of Competency	Nominal Hours
SUICT001L2V1	Operate a Personal Computer and Use Application programs	<ol> <li>Start computer</li> <li>Access basic system information</li> <li>Work with files and folders</li> <li>Use application programs</li> <li>Print documents</li> <li>Shut down computer</li> </ol>	15
SUICT002L2V1	Operate office application software	<ol> <li>Operate computer</li> <li>Install application software</li> <li>Use word processor to prepare/create documents</li> <li>Use spreadsheet to create /prepare worksheets</li> <li>Use presentation software to create / prepare presentation</li> <li>Print a document</li> </ol>	25
SUICT003L2V1	Access Information using Internet and electronic mail	Access resources from internet     Use and manage Electronic mail     Use audio/video tools for information transfer	15
SUICT004L2V1	Comply to Ethical Standards in IT Workplace	<ol> <li>Uphold the requirements of clients</li> <li>Deliver quality products and services</li> <li>Maintain professionalism at workplace</li> <li>Maintain workplace code of conduct.</li> </ol>	15

# **Occupation Specific Competencies**

Code	Unit of Competency	2. Elements of Competency	Nominal Hours
OUWD001L3V1	Setup Web     design     environment	<ul> <li>1.1 Setup client server</li> <li>1.2 Work with the browser</li> <li>1.3 Introduce web design software</li> <li>1.4 Interpret web server</li> <li>1.5 Install FTP clients</li> <li>1.6 Interpret data layer</li> </ul>	20
OUWD002L3V1	2. Work with HTML	<ul><li>2.1 Introduce HTML</li><li>2.2 Apply the fundamentals of typography</li><li>2.3 Create HTML page</li><li>2.4 Create HTML form</li></ul>	40
OUWD003L3V1	3. Work with CSS	3.1 Interpret CSS 3.2 Apply CSS 3.3 Use responsive approach 3.4 Use CSS grid	20
OUWD004L3V1	4. Perform Design to HTML	4.1 Create graphic design object 4.2 Create image slice 4.3 Use objects to HTML	40
OUWD005L3V1	5. Work With basic JavaScript & jQuery	5.1 Identify JavaScript Core 5.2 Introduce BOM & DOM 5.3 Integrate JavaScript 5.4 Integrate jQuery	40
OUWD006L3V1	6. Work with Front- end Framework	<ul><li>6.1 Interpret responsive website</li><li>6.2 Interpret front-end framework components</li><li>6.3 Use bootstrap to create layout</li></ul>	60
OUWD007L3V1	7. Work with CMS	7.1 Interpret CMS 7.2 Configure CMS 7.3 Use WordPress plugin and theme	40

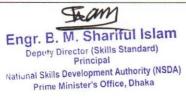


# **Generic Competencies**

Unit Code and Title	GU002L2V1: Apply Occupational Safety and Health (OSH) Practices in the Workplace		
Nominal Hours	15 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to apply OSH practices in the workplace. It specifically includes – identify, control and report OSH hazards; conduct work safely; follow emergency response procedures; and maintain and improve health and safety in the workplace.		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables Training Components		
Identify, control and report OSH hazards	<ul> <li>1.1 Immediate work area is routinely checked for OSH hazards prior to commencing and during work</li> <li>1.2 <u>Hazards</u> and unacceptable performance are identified and corrective action is taken within the level of responsibility</li> <li>1.3 OSH hazards and incidents are reported to appropriate personnel according to workplace procedures</li> <li>1.4 Safety Signs and symbols are identified and followed</li> </ul>		
Conduct work     safely	<ul> <li>2.1 OSH practices are applied in the workplace</li> <li>2.2 Appropriate <u>Personal Protective Equipment (PPE)</u> is selected and worn</li> <li>2.3 Personal hygiene is maintained.</li> </ul>		
Follow emergency response procedures	<ul> <li>3.1 Emergency situations are identified and reported according to workplace reporting requirements</li> <li>3.2 Emergency procedures are followed as appropriate to the nature of the emergency and according to workplace procedures</li> <li>3.3 Workplace procedures for dealing with accidents, fires and emergencies are followed whenever necessary within scope of responsibilities</li> </ul>		
Maintain and improve health and safety in the workplace	<ul> <li>4.1 Risks are identified and appropriate control measures are implemented in the work area</li> <li>4.2 Recommendations arising from risk assessments are implemented within level of responsibility</li> <li>4.3 Opportunities for improving OSH performance are identified and raised with relevant personnel</li> </ul>		

	4.4 Safety records according to <u>company policies</u> are maintained
Range of Variables	
Variable	Range (may include but not limited to):
1. Hazards	<ul> <li>1.1 OSH incidents include near misses, injuries, illnesses and property damage, noise, handling hazardous substances, other hazards</li> <li>1.2 Working with and near moving equipment/load shifting equipment</li> <li>1.3 Broken or damaged equipment or materials</li> </ul>
Personal Protective     Equipment (PPE)	2.1 Goggles 2.2 Ear muffs 2.3 Ear plugs 2.4 Gloves 2.5 Clothing 2.6 Apron 2.7 Helmet 2.8 Boots
Workplace procedures	<ul> <li>3.1 OSH system and related documentation including policies and procedures</li> <li>3.2 Standard Operating Procedures (SOPs)</li> <li>3.3 Information on hazards and the work process, hazard alerts, safety signs and symbols</li> <li>3.4 Labels</li> <li>3.5 Material Safety Data Sheets (MSDSs) and manufacturers' advice</li> </ul>
4. Company policies	<ul> <li>4.1 Job-related Standard Operating Procedures (SOPs)</li> <li>4.2 OSH-specific procedures.</li> <li>4.3 Examples of OSH procedures include consultation and participation, emergency response, response to specific hazards, incident investigation, risk assessment reporting arrangements and issue resolution procedures</li> </ul>
	authentic, valid, sufficient, reliable, consistent and recent and of the current version of the Unit of Competency
Critical aspects of competency	Assessment required evidence that the candidate: 1.1 identified, controlled and reported OSH hazards 1.2 followed work safety 1.3 followed emergency response procedures. 1.4 maintained and improved health and safety in the

	workplace
2. Underpinning knowledge	<ul> <li>2.1 Personal protective equipment - Hand gloves, safety shoes, safety goggles, masks, apron,</li> <li>2.2 Identification of tools and equipment</li> <li>2.3 Hazardous events</li> <li>2.4 Tools, equipment, machinery and relevant accessories</li> <li>2.5 Communication</li> <li>2.6 Job roles, responsibilities and compliance</li> <li>2.7 Workplace laws</li> </ul>
3. Underpinning skill	<ul> <li>3.1 Using appropriate PPE</li> <li>3.2 Identifying tools and equipment</li> <li>3.3 Taking safety precautions and responding to different hazardous situations</li> <li>3.4 Operating and using tools, equipment, machinery and accessories properly as per SOP (Company Standards)</li> <li>3.5 Communicating with peers and supervisors</li> <li>3.6 Applying OSH practices in the workplace</li> </ul>
4. Required attitude	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource implication	The following resources must be provided: 5.1 Adequate workplace 5.2 Computer 5.3 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.4 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	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>



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 NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

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; interpreting 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	<ul> <li>1.1 Workplace code of conducts are interpreted as per organizational guidelines</li> <li>1.2 Appropriate lines of communication are maintained with supervisors and colleagues</li> <li>1.3 Workplace interactions are conducted in a <u>courteous</u> <u>manner</u> to gather and convey information</li> <li>1.4 Questions about routine <u>workplace procedures and</u> <u>matters</u> are asked and responded as required</li> </ul>
Interpret Workplace     Documents	<ul> <li>2.1 Workplace documents are interpreted as per standard.</li> <li>2.2 Assistance is taken to aid comprehension when required from peers / supervisors</li> <li>2.3 Visual information / symbols / signage's are understood and followed</li> <li>2.4 Specific and relevant information are accessed from appropriate sources</li> <li>2.5 Appropriate medium is used to transfer information and ideas</li> </ul>
Participate in workplace meetings and discussions	<ul> <li>3.1 Team meetings are attended on time and followed meeting procedures and etiquette</li> <li>3.2 Own opinions are expressed and listened to those of others without interruption</li> <li>3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes</li> </ul>
Practice professional ethics at workplace	<ul> <li>4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others</li> <li>4.2 Tasks are performed in accordance with workplace procedures</li> <li>4.3 Confidentiality is respected and maintained</li> </ul>

	4.4 Situations and actions considered inappropriate which present a conflict of interest are avoided		
Range of Variables			
Variable	Range (may include but not limited to):		
	1.1 Effective questioning		
<ol> <li>Courteous Manner</li> </ol>	1.2 Active listening		
	1.3 Speaking skills		
	2.1 Notes		
	2.2 Agenda		
	2.3 Simple reports such as progress and incident reports		
2. Workplace	2.4 Job sheets		
Procedures and	2.5 Operational manuals		
Matters	2.6 Brochures and promotional material		
Matters	2.7 Visual and graphic materials		
	2.8 Standards		
	2.9 OSH information		
	2.10 Signs		
	3.1 HR Department		
Appropriate Sources	3.2 Managers		
	3.3 Supervisors		

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

nt required evidence that the candidate:
ed workplace code of conducts is as per zational guidelines eted workplace documents as per standard eted workplace instructions and symbols
eted and implemented meeting outcomes
lace communication and etiquette lace documents, signs and symbols og procedure and etiquette
nstrating performance of workplace unication and etiquette ing workplace instructions and symbol
ing workplace code of conducts is as per zational guidelines eting workplace documents as per standard eting and implementing meeting outcomes
(

Underpinning     Attitudes	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource Implications	The following resources must be provided:  5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.  5.2 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	<ul> <li>7.1 Competency assessment must be done in NSDA accredited center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

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 NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

# **Sector Specific Competencies**



Unit Code and Title	SUICT001L2V1: Operate a Personal Computer and Use Applications programs		
Nominal Hours	12 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to operate a personal computer and use application programs. It specifically includes starting computer accessing basic system information, working with files and folders, using application programs, printing document and shutting down computer.		
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables Training Components		
1. Start computer	<ol> <li>Safe workplace practices are observed according to IT workplace guideline.</li> <li>Computer is checked for proper connection position and usability.</li> <li>Peripheral devices are checked for correct connection, position and usability.</li> <li>Power of computer and other peripheral devices are switched on.</li> </ol>		
Access basic system information	<ul> <li>2.1 User name and password as prompted and note access, privacy, security and related conditions of use displayed on introductory screens are inserted.</li> <li>2.2 PC desktop environment/Graphical User Interface (GUI) settings is arranged and customized.</li> <li>2.3 The <u>operating system</u> information is identified.</li> <li>2.4 System configuration and application versions in operation are navigated.</li> </ul>		
Work with files and folders	<ul> <li>3.1 Desktop environment is customized.</li> <li>3.2 Basic directory and sub-directories are created and named.</li> <li>3.3 Attributes of directories are identified.</li> <li>3.4 Files for user and organization requirements are created and organized</li> <li>3.5 Data are entered into the desired office application in accordance with work requirements</li> <li>3.6 Files are copied and saved to available data storage devices.</li> </ul>		
Use application programs	4.1 Calculator program is used 4.2 Notepad is used 4.3 WordPad is used 4.4 Snipping Tool is applied 4.5 Paint is used 4.6 Sticky Note is used		

<ol><li>Print documents</li></ol>	5.1 Printer settings, if required, are entered into the
	program
	5.2 Default printer is changed where necessary
	5.3 Print preview option is accessed to effect printing
	of documents
	5.4 Adjust document print output where necessary
	5.5 Printout is taken
<ol><li>Shut down computer</li></ol>	6.1 All opened files/documents are exited.
	6.2 All opened application programs are logged out i
	accordance with standard application procedure.
	6.3 Personal computer is shut down in accordance with
	standard shut down procedure.
	6.4 The computer and other peripherals are switched
	off and switched off power supply in accordance
	with standard procedure.
Range of Variables	
Variables	Range (may include but not limited to):
Peripheral devices	1.1 Input Devices
	1.1.1 keyboard, MIDI keyboard
	1.1.2 mouse
	1.1.3 touch screen
	1.1.4 Digitizer tablet
	1.1.5 joystick
	1.1.6 scanner
	1.1.7 digital camera
	1.1.8 video camera
	1.1.9 microphone
	1.2 Output Devices
	1.2.1 monitor
	1.2.2 projector
	1.2.3 TV screen
	1.2.4 printer
	1.2.5 plotter
	1.2.6 speakers
	1.3 Both input/output
	1.3.1 external hard drives
	1.3.2 USB drives
	1.3.3 media card readers
	1.3.4 digital camcorders
	1.3.5 digital mixers
Operating system	1.3.6 MIDI equipment
2. Operating system	2.1 Windows
	2.2 Mac OS
	2.3 Linux
	2.4 Android



3. Data storage devices	3.1 Random Access Memory (RAM)
	3.2 Hard disk
	3.3 CD/DVD
	3.4 Flash drive
	3.5 External hard disk
4. Application programs	2.1 Word processors
	2.2 Spreadsheets
	2.3 Slide presentation
	2.4 Email interface
	2.5 Internet browsers

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency		
		ssment required evidence that the candidate:
Critical aspects of competency	1.1 1.2 1.3 1.4	arranged, customized and manipulated PC desktop environment/graphical user interface (GUI) settings. selected, opened and closed desktop icons to access application programs entered data into the desired office application in accordance with work requirements entered print command to effect printing of documents
2. Underpinning knowledge	2.11	Basic software Computer functions Creating and opening documents Formatting documents Inserting tables and images Saving, printing and closing documents Mail merge function Basic keyboarding skills Methods and procedure in switching on and off the computer and other peripherals Selection, opening and closing procedures of desktop icons to access application programs Method of creating and organizing files for user and organization requirements Data input techniques in accordance with standard typing procedure and office application Printing procedure and commands
3. Underpinning skill	3.1 3.2 3.3 3.4 3.5	Switching on power of computer and other peripheral devices Arranging, customizing and manipulating PC desktop environment/graphical user interface (GUI) settings Selecting, opening and closing desktop icons to access application programs Creating and organizing Files for user and organization requirements Entering data into the desired office application in accordance with work requirements

	<ul> <li>3.6 Entering print command to effect printing of documents</li> <li>3.7 Switching off the computer and other peripherals and unplugging power supply in accordance with standard procedure</li> </ul>
4. Required attitude	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource implication	The following resources must be provided:  5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.  5.2 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	<ul> <li>7.1 Competency assessment must be done in NSDA accredited center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

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Unit Code and Title	SUICT002L3V1: Operate Office Application Software		
Nominal Hours	This unit covers the knowledge, skills and attitude required to operate office application software. It specifically includes operating computer, installing application software, using word processor to prepare/create documents, using spread sheet to create /prepare worksheets, using presentation software to create / prepare presentation, and printing a document.		
Unit Descriptor			
Elements of	Performance Criteria		
Competency	Bold and Underlined terms are elaborated in the Range of Variable Training Components		
Operate computer	<ul> <li>1.1 Safe workplace practices are observed according to IT workplace guideline.</li> <li>1.2 Desktop <u>Peripherals</u> are checked and connected</li> </ul>		
	with computer properly.  1.3 Computer is switched on.		
	1.4 Computer <u>desktop / GUI settings</u> are arranged and customized as per requirement.		
	1.5 Files and folders are <u>manipulated</u> as per requirement.		
	Properties of files and folders are viewed and searched.		
	1.7 Disks are defragmented, formatted as per requirement.		
Install application	2.1 Installation requirements of software are identified		
software	<ul><li>2.2 and listed.</li><li>2.3 Software sources and CD key/ password are assured.</li></ul>		
	2.4 <b>Appropriate Software</b> are collected and selected as		
	2.5 per requirement.		
	2.6 Software installation is started.		
	2.7 Customization is done as per requirement.		
	2.8 Steps of installation are followed as per installation		
	Instructions.		
	<ul><li>2.9 Installations are completed properly.</li><li>2.10 Correctness of Installation is checked.</li></ul>		
3. Use word	3.1 Appropriate word processor is		
processor to	Selected and started.		
prepare/create	3.2 Documents are created as per requirement in		
documents	Personal use and office environment.		
	3.3 Contents are entered.		
	<ul><li>3.4 Documents are formatted.</li><li>3.5 Paragraph and page settings are completed.</li></ul>		
	<ul><li>3.5 Paragraph and page settings are completed.</li><li>3.6 Document is saved.</li></ul>		
Use spreadsheet to create /prepare	<ul> <li>4.1 <u>Spreadsheet applications</u> are selected and started.</li> <li>4.2 Worksheets are created as per requirement in</li> </ul>		
worksheets	Personal use and office environment.		



	4.3	Data are entered
	4.4	Functions_are used for calculating and editing logical operation
	4.5	Sheets are formatted as per requirement.
	4.6	Charts are created.
	4.7	Charts/ Sheets are saved.
<ol><li>Use presentation software to create</li></ol>	5.1	Appropriate <u>presentation applications</u> are selected and started
/ prepare	5.2	Presentation are created as per requirement in
presentation		personal use and office environment
	5.3	Image, Illustrations, text, table, symbols and media are entered as per requirements.
	5.4	Presentations are formatted and animated.
	5.5	Presentations are viewed and saved.
6. Print a document	6.1.	Printer_is connected with computer.
	6.2.	Power is switched on at both the power outlet and printer.
	6.3.	Printer is installed and added.
	6.4.	Paper of proper size is put into printer.
	6.5.	Correct printer setting is selected
	6.6.	Document is previewed and printed.
	6.7.	Print from the printer spool is viewed or cancelled
		and unsaved data is saved as per requirements.
	6.8.	Opened software is closed.
	6.9.	Devices are shut down.
Range of Variables		
Variable	Rang	ge (May include but not limited to: )
<ol> <li>Peripherals</li> </ol>	1.1	Monitor
	1.2	Keyboard
	1.3	Mouse
	1.4	Modem
	1.5	Scanner
	1.6	Printer
<ol><li>Desktop/ GUI</li></ol>	2.1	Icons
settings	2.2	Taskbar
	2.3	View
	2.4	Resolutions
<ol><li>Manipulate</li></ol>	3.1	Create
	3.2	Open
	3.3	Сору
	3.4	Rename
	3.5	Delete
	3.6	Sort
<ol><li>Appropriate</li></ol>	5.1	Word processor.
Software	5.2	Spread sheet application.
	5.3	Presentation application.



<ol><li>Word processor</li></ol>	6.1 MS Word processor
	6.2 Open office Org
	6.3 Google docs
	6.4 Word perfect
	6.5 LibreOffice
<ol><li>Spread sheet</li></ol>	7.1 MS Excel
applications	7.2 Google Sheets
	7.3 Apple Numbers by Apple
<ol><li>Presentation</li></ol>	8.1 MS PowerPoint
application	8.2 Google Slides
	8.3 Prezi
Evidence Guide	
	authentic, valid, sufficient, reliable, consistent and recent and
meet the requirements of	of the current version of the Unit of Competency.
<ol> <li>Critical aspects of</li> </ol>	Assessment required evidence that the candidate:
competency	1.1 installed Operating system
	1.2 manipulated Files and folders as per requirement
	1.3 installed application software
	1.4 used functions in spread sheet.
	1.5 applied animations into presentation slide.
	1.6 printed document.
<ol><li>Underpinning</li></ol>	2. 1 Desktop items
knowledge	2. 2 Type of Bangla keyboard layout
	2. 3 Different type of software and application packages
	2. 4 Use of word processor, spread sheet and
	presentation software
	2. 5 Type of printers
	2. 6 Type of charts, Impotence of chart
w	<ol><li>2. 7 Different type of math and logical functions.</li></ol>
<ol><li>Underpinning skill</li></ol>	3.1 Starting computer
	3.2 Installing Operating system
	3.3 Managing desktop item
	3.4 Manipulating Files and folders as per requirement
	3.5 Installing application software
	3.6 Running application software
	3.7 Creating and saving document with word processing
	application.
	3.8 Using functions in spread sheet.
	3.9 Applying animations into presentation slide.
	3.10 Printing document.
<ol><li>Required attitude</li></ol>	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, sub-ordinates and seniors
	in workplace
<ol><li>Resource</li></ol>	Following Resources must be provided

implication	<ul> <li>5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.</li> <li>5.2 Required learning meterials</li> </ul>
0.14-41-1	5.2 Required learning materials.
<ol><li>Methods of</li></ol>	6.1 Written Test
assessment	6.2 Demonstration
	6.3 Oral Questioning
	6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment center.
	7.2 Assessment should be done by NSDA certified/ nominated assessor

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Unit Code and Title	SUICT003L3V1: Access Information using Internet and Electronic mail
Nominal Hours	15 hours
Unit Descriptor	This unit covers the knowledge, skills and attitude required to access information using internet and electronic mail. It specifically includes accessing resources from internet, using and managing electronic mail, and using audio/video tools for information transfer.
Elements of Competency	Performance Criteria Bold and underlined terms are elaborated in the Range of Variable.
Access resources from internet	<ul> <li>1.1 Appropriate internet <u>browsers</u> are selected and installed.</li> <li>1.2 Internet browser is opened and web address / URL is written/selected in /from address bar to access <u>information</u>.</li> </ul>
	<ul> <li>1.3 Search engines are used to access information</li> <li>1.4 Video / Information are Shared /downloaded / uploaded from / to web site/social media.</li> <li>1.5 Web based resources are used.</li> <li>1.6 Netiquette' (or web etiquette) principles are searched and followed.</li> </ul>
2. Use and manage electronic mail	<ul> <li>2.1. Email services are identified and selected to create a new email address</li> <li>2.2. Email account is created.</li> <li>2.3. Document is prepared, attached and sent to different types of recipient.</li> <li>2.4. Email is read, forwarded, replied and deleted as per requirement.</li> <li>2.5. Custom email folders are created and manipulated.</li> <li>2.6. Email massage is printed.</li> </ul>
Use audio/video tools for information transfer	2.6. Email message is printed.     3.1 Audio and video tools are identified     3.2 Apps using audio/video tools are identified     3.3 Information is transferred with apps using audio/video tools
Range of Variables	Down Marian Internation
Variable 1. Browsers	Range (May include but not limited to:)  1.1 Mozilla Firefox 1.2 Google chrome 1.3 Internet explorer 1.4 Opera
2. Information	2.1. Text information 2.2. Graphics 2.3. Video
3. Search engines	3.1. Google 3.2. Yahoo 3.3. AltaVista



	3.4. Msn
	3.5. Bing
4. Social media.	4.1 Face book
	4.2 Twitter
	4.3 LinkedIn
	4.4 YouTube
5. Web based services	5.1 Drive
	5.2 Calendar
	5.3 Map
	5.4 Translator
	5.5 Docs
	5.6 Search
6. Email services	6.1 Free mail services – Gmail, Yahoo, Hotmail
	6.2 Web mail services.
Evidence Guide	
The evidence must be author	entic, valid, sufficient, reliable, consistent and recent and
meet the requirements of the	e current version of the Unit of Competency.
Critical aspects of	Assessment required evidence that the candidate:
competency	1.1 downloaded / uploaded video / Information from /
,	to web site
	1.2 prepared, attached and sent documents to
	different types of recipient.
2. Underpinning knowledge	2.1. Internet
,	2.2. www
	2.3. web site
	2.4. web address
	2.5. URL
	2.6. Web browsers
	2.7. Search engines
	2.8. Information
	2.9. Social media
	2.10. Web based services
	2.11. Folder manipulation
3. Underpinning skill	3.1 Accessing and sharing resources from internet
o. Orider pirming skin	3.2 Downloading /uploading file, documents and
	video from /to web sites
	3.3 Sending and receiving mail through mail service.
	3.4 Using audio/video tools to share information.
Required attitude	4.1 Commitment to occupational health and safety
4. Required attitude	4.2 Promptness in carrying out activities
	4.3 Sincere and honest to duties
	4.4 Environmental concerns
	4.6 Tidiness and timeliness
	4.7 Respect for rights of peers and seniors in
	workplace
	4.8 Communication with peers, sub-ordinates and
F. Deserver in all and	seniors in workplace
<ol><li>Resource implication</li></ol>	Following Resources must be provided-
	5.1 Relevant tools, Equipment, software and facilities

	needed to perform the activities. 5.2 Required learning materials.
6. Methods of assessment	<ul><li>6.1 Written Test</li><li>6.2 Demonstration</li><li>6.3 Oral Questioning</li><li>6.4 Portfolio</li></ul>
7. Context of assessment	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

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Unit Code and Title	SUICT004L3V1: Comply to Ethical Standards in IT Workplace		
Nominal Hours	15 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to comply to ethical standards in IT workplace. It specifically includes upholding the requirements of clients, delivering quality products and services, maintaining professionalism at workplace, and maintaining workplace code of conduct.		
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables		
Uphold the requirements of clients	<ul> <li>1.1 Clients' requirements are identified.</li> <li>1.2 Confidentiality of information is maintained in accordance with workplace policies / organizational policies/ national legislation.</li> <li>1.3 Potential conflicts of interest are identified and involved parties of potential conflicts are notified.</li> <li>1.4 Proprietary rights of client/customer is asserted.</li> </ul>		
Deliver quality     products and     services	<ul> <li>2.1. Products and services are provided according to the clients' requirements.</li> <li>2.2. Work is completed as per standards.</li> <li>2.3. Quality processes are implemented when developing products and services.</li> </ul>		
Maintain     professionalism at     workplace	<ul> <li>3.1 Work processes are delivered as per standards.</li> <li>3.2 Skills, knowledge and qualifications are presented in a professional manner.</li> <li>3.3 Services and products developed by self and others are delivered as per workplace standard.</li> <li>3.4 Unbiased and objective information are provided to clients.</li> <li>3.5 Realistic estimates for time, cost and delivery of outputs are presented during negotiation.</li> </ul>		
<ol> <li>Maintain workplace code of conduct.</li> </ol>	<ul><li>4.1 Workplace code of conduct are interpreted</li><li>4.2 Workplace code of conduct is followed.</li></ul>		
Range of variables			
Variables	Range (may include but not limited to):		
Evidence Guide	S ann		

meet the requirements	of the c	<ul> <li>c, valid, sufficient, reliable, consistent and recent and urrent version of the Unit of Competency</li> </ul>
	Asse	essment required evidence that the candidate:
	1.1	properties of energe editions.
	1.2	completed work to industry and international
	1.0	standards.
Critical aspects of competency	1.3	implemented quality processes when developing
	11	products and services.
	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.	
		workplace policies in relation to IT sector
2 Underninning	2.3.	Law and regulations pertaining to proprietary rights
2. Underpinning knowledge	2.4.	Quality processes for products and services
	2.5.	Procedure of provided to client information
	2.6.	Method of estimating for time, cost and delivery
		products and services
	2.7.	Workplace code of conduct in IT sector
	3.1.	Upholding confidentiality of information in
		accordance with organizational policies, national
		legislation and workplace policies
	3.2.	Asserting proprietary rights of client/customer
	3.3.	Completing work in accordance with industry and international standards
	3.4.	Implementing quality processes when developing
3. Underpinning Skills	0.1.	products and services
	3.5.	Delivering correctly services and products
		developed by self and others
	3.6.	Providing unbiased and objective information are
	0.7	to clients.
	3.7.	Presenting realistic estimates for time, cost and
	3.8.	delivery of outputs during negotiation Following workplace code of conduct
	4.1	Commitment to occupational health and safety
Underpinning     Attitudes	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.
5. Resource Implications	The following resources must be provided:  5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.  5.2 Required learning materials.
6. Methods of Assessment	<ul><li>6.1 Written Test</li><li>6.2 Demonstration</li><li>6.3 Oral Questioning</li><li>6.4 Portfolio</li></ul>
7. Context of Assessment	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

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# **Occupation Specific Competencies**



Unit Code and Title	OUWD001L3V1: Setup Web Design Environment		
Nominal Hours	20 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes require to setup web design environment. It specifically include setting up client server, working with the browser, introducir web design software, interpreting web server, installing FT clients, and interpreting data layer.		
Elements of Competency	Performance Criteria  Bold and Underlined terms are elaborated in the Range of Variables		
Setup client server	<ul> <li>1.1 Client server architecture is identified.</li> <li>1.2 <u>Types of network</u> and their functionality is interpreted.</li> <li>1.3 <u>Type of websites</u> are categorized.</li> <li>1.4 Local Web server is installed.</li> <li>1.5 Local web server is tested.</li> </ul>		
Work with the browser	2.1. Web browser is identified 2.2. Types of <u>web browser</u> is introduced. 2.3. Web browser is installed and used 2.4. Features/options of different web browsers are outlined. 2.5. Cross browser compatibility of websites is interpreted. 2.6. "Inspect element" tool is introduced		
Introduce web design software	<ul> <li>3.1 Web design software is interpreted.</li> <li>3.2 Web design platform is introduced.</li> <li>3.3 Web design software is familiarized.</li> </ul>		
4. Interpret web server	<ul><li>4.1. Web server is identified.</li><li>4.2. Local web server is defined.</li><li>4.3. Web server is interpreted.</li></ul>		
5. Install FTP clients	<ul> <li>5.1 <u>FTP client</u> is interpreted</li> <li>5.2 FTP client is installed.</li> <li>5.3 FTP client is used to upload or move files to web server.</li> </ul>		
Interpret data layer	<ul> <li>6.1 Data layer is defined.</li> <li>6.2 <u>Data layer</u> is interpreted.</li> <li>6.3 Web API is introduced.</li> </ul>		
Range of Variables			
Variables	Range (may include but not limited to):		
Types of network	1.1 Intranet 1.2 Extranet 1.3 Internet		

2. Types of websites	2.1 Static
	2.2 Dynamic
	2.3 Interactive
<ol><li>Web browser</li></ol>	3.1 Mozilla Firefox
	3.2 Google Chrome
	3.3 Safari
	3.4 Opera
	3.5 Microsoft edge
4. Web design software	4.1 Web editors (note pad ++, Sublime text etc)
	4.2 Desktop publishing software (Photoshop, illustrator,
	Adobe InDesign, Adobe XD etc.)
	4.3 Audio/ Video Players
5. FTP client	5.1 FileZilla
	5.2 CyberDuck
	5.3 File Manager
6. Data layer	6.1 Web API (AWS, Azure etc.)
	6.2 Static file (Excel, CSV, PDF)
	6.3 Google sheet
	6.4 PHP MyAdmin
	6.5 MySQL

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 competency	Assessment required evidence that the candidate: 1.1 installed and tested local Web server 1.2 introduced "Inspect element" tool on a web browser 1.3 installed FTP client 1.4 introduced web API
Underpinning knowledge	2.1 Client server architecture 2.2 Network types 2.3 Website types 2.4 Local web server 2.5 Web browsers 2.6 Cross browser compatibility 2.7 Inspect Element tool 2.8 Web design platforms and software 2.9 FTP client 2.10 Data layer 2.11 Wen API
3. Underpinning Skills	<ul> <li>3.1 Identifying client server architecture</li> <li>3.2 Installing and testing local Web server</li> <li>3.3 Installing and using web browsers</li> <li>3.4 Interpreting cross browser compatibility</li> <li>3.5 Introducing "Inspect element" tool on a web browser</li> <li>3.6 Installing and using FTP client</li> <li>3.7 Introducing web API</li> </ul>

4. Required attitude	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>		
5. Resource Implication	The following resources must be provided: 5.1 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.2 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 must be done in NSDA accredited assessment center.      7.2 Assessment should be done by NSDA certified/ nominated assessor		



Unit Code and Title	OUWD002L3V1: Work with HTML		
Nominal Hours	40 Hours  This unit covers the knowledge, Skills and attitudes required to work with Html. It specifically includes introducing HTML, applying fundamentals of typography, creating HTML page and using HTML form.		
Unit Descriptor			
Elements of Competency	Performance Criteria  Bold and Underlined terms are elaborated in the Range of Variables.		
Introduce HTML	<ul> <li>1.1 Structure of HTML (Hypertext Mark-up Language) is interpreted</li> <li>1.2 DHTML tags are introduced</li> <li>1.3 Entities &amp; attributes of HTML is interpreted.</li> </ul>		
Apply fundamentals of typography	<ul><li>2.1 Typography is interpreted.</li><li>2.2 Guidelines for web typography is applied.</li><li>2.3 Guidelines for print typography is applied.</li></ul>		
3. Create HTML page	3.1 Software is selected for creation of HTML page 3.2 Most common HTML tags are used 3.3 Most common entities & attributes are used 3.4 HTML multicolumn layout is implemented. 3.5 HTML Graphics are used. 3.6 HTML Media is used. 3.7 HTML page is saved.		
4. Using HTML form	4.1 HTML form elements are used. 4.2 HTML input attributes are used. 4.3 HTML form validation is used. 4.4 Webpage is created using form attributes.		
Range of Variables			
Variables	Range (may include but not limited to):		
1. Software	1.1 Macromedia Dreamweaver 1.2 Microsoft Front page		
2. HTML Graphics	2.1 HTML Canvas 2.2 HTML SVG		
3. HTML Media	3.1 HTML Video 3.2 HTML Audio 3.3 HTML Plug-ins 3.4 HTML YouTube		



4.	HTML form elements	4.1	Form
		4.2	Input
		4.3	Lebel
		4.4	Text
		4.5	Select
		4.6	Option
		4.7	Textarea
		4.8	Radio
		4.9	Checkbox
		4.10	Uploader
		4.11	Button
		4.12	Legend

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 Competency	Assessment required evidence that the candidate: 1.1 Applied HTML structure 1.2 used HTML and DHTML tags 1.3 applied typography 1.4 created HTML multicolumn layout 1.5 used HTML form layout
Underpinning     Knowledge	<ul> <li>2.1 HTML (Hypertext Mark-up Language) on a website</li> <li>2.2 HTML structure</li> <li>2.3 HTML and DHTML Tags</li> <li>2.4 Typography</li> <li>2.5 HTML entities and attributes</li> <li>2.6 HTML Input attributes</li> <li>2.7 Form validation</li> </ul>
3. Underpinning Skills	3.1 Applying HTML structure 3.2 Using HTML and DHTML tags 3.3 Applying typography 3.4 Creating HTML multicolumn layout 3.5 Using HTML graphics 3.6 Using HTML media 3.7 Using HTML form layout 3.8 Using input attributes 3.9 Using form validation
4. Required Attitudes	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>

5. Resource Implications	<ul> <li>The following resources must be provided:</li> <li>5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.</li> <li>5.2 Required learning materials.</li> </ul>
6. Methods of Assessment	<ul><li>6.1 Written Test</li><li>6.2 Demonstration</li><li>6.3 Oral questioning</li><li>6.4 Portfolio</li></ul>
7. Context of Assessment	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

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Engr. B. W. Sharifus

Deputy Director (Skills Standard
Principal

National Skills Development Authority (N
Prime Minister's Office, Ohak

Unit Code and Title	OUWD003L3V1: Work with CSS		
Nominal Hours	20 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to work with CSS. It specifically includes interpreting and applying CSS, using responsive approach and using CSS grid.		
Elements of Competency	Performance Criteria  Bold and Underlined terms are elaborated in the Range of Variables		
1. Interpret CSS	<ul> <li>1.1 CSS (Cascading Style Sheets) is interpreted.</li> <li>1.2 <u>Types of CSS</u> are identified.</li> <li>1.3 Syntax of CSS is interpreted.</li> <li>1.4 Selector of CSS is interpreted.</li> </ul>		
2. Apply CSS	<ul> <li>2.1. CSS file is created.</li> <li>2.2. CSS file is integrated.</li> <li>2.3. CSS is implemented as per layout.</li> <li>2.4. CSS box model and positioning is applied.</li> <li>2.5. CSS transition and gradients are applied.</li> <li>2.6. 2D/3D transformation and animation is applied.</li> </ul>		
3. Use responsive approach	<ul> <li>3.1 Responsive layout is defined.</li> <li>3.2 Media Query is interpreted with CSS.</li> <li>3.3 Media query is implemented.</li> <li>3.4 Responsive approach is applied on a webpage.</li> </ul>		
4. Use CSS grid	<ul> <li>4.1 CSS grid is interpreted.</li> <li>4.2 CSS Grid container is defined.</li> <li>4.3 CSS grid items are identified.</li> <li>4.4 CSS grid is applied.</li> </ul>		
Range of Variables			
Variable	Range (may include but not limited to):		
Types of CSS	1.1 Inline 1.2 Embedded/ Internal 1.3 External		
	authentic, valid, sufficient, reliable, consistent and recent and of the current version of the Unit of Competency		
Critical Aspects of Competency	Assessment required evidence that the candidate:  1.1 implemented CSS as per layout 1.2 applied 2D/3D transformation and animation 1.3 implemented media query 1.4 applied CSS grid		

	2.1 Procedure of implementing the basis sensents of CCC		
0.11	<ol> <li>2.1 Procedure of implementing the basic concepts of CSS (Cascading Style Sheets)</li> </ol>		
2. Underpinning	2.2 CSS		
Knowledge	2.3 LESS		
	2.4 SASS		
	3.1 Creating CSS file		
	3.2 Integrating CSS file		
	3.3 Implementing CSS as per layout		
3. Underpinning Skills	<ul><li>3.4 Applying CSS box model and positioning</li><li>3.5 Applying CSS transition and gradient</li></ul>		
or order printing ordino	3.6 Applying 2D/3D transformation and animation		
	3.7 Implementing media query		
	3.8 Applying responsive approach on a webpage.		
	3.9 Applying CSS grid		
	4.1 Commitment to occupational health and safety		
	4.2 Promptness in carrying out activities		
	4.3 Sincere and honest to duties		
4. Required Attitudes	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:		
5. Resource Implications	5.1 Relevant tools, Equipment, software and facilities		
	needed to perform the activities.		
	5.2 Required learning materials.		
	6.1 Written Test		
6. Methods of	6.2 Demonstration		
Assessment	6.3 Oral Questioning		
	6.4 Portfolio		
	7.1 Competency assessment must be done in NSDA		
7. Context of	accredited assessment center.		
Assessment	7.2 Assessment should be done by NSDA certified/		
	nominated assessor		

Unit Code and Title	OUWD004L3V1: Perform Design to HTML		
Nominal Hours	40 Hours		
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to perform design to HTML. It specially includes creating graphic design object, creating image slice and using objects to HTML		
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables		
Create graphic design object	1.1 Image processing software is identified 1.2 Basic shape is created. 1.3 Image manipulation is performed 1.4 Web UI (User Interface) is created		
2. Create image slice	2.1 Graphic design object is identified. 2.2 Image processing software is selected 2.3 Smart objects vs normal layers are introduced 2.4 Layers are used. 2.5 Objects are sliced		
3. Use objects to HTML	<ul><li>3.1 Objects are exported for web.</li><li>3.2 Graphic assets are integrated to webpage.</li></ul>		
Range of Variables			
Variables	Range (may include but not limited to):		
Image processing software      Basic shape	1.1 Adobe Photoshop 1.2 Adobe Illustrator 1.3 Adobe InDesign 1.4 Adobe XD 2.1 Circle		
2. Dadio dilapo	2.1 Circle 2.2 Triangle 2.3 Square 2.4 Rectangle 2.5 Rhombus 2.6 Trapezoid 2.7 Pentagon 2.8 Hexagon 2.9 Octagon 2.10 Pyramid 2.11 Oval		
3. Image manipulation	3.1 Image resize 3.2 Color correction		



3.3 Retouch	
3.4 Crop	
3.5 Filter	
 3.6 Optimize for web	

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

meet the requirements of	the current version of the Unit of Competency.
	Assessment required evidence that the candidate:
Critical Aspects of Competency	<ul><li>1.1 performed image manipulation</li><li>1.2 created web UI</li><li>1.3 sliced objects</li></ul>
	1.4 integrated graphic assets to webpage
	2.1 Photoshop installation procedure
	2.2 Photoshop environment
	2.3 Procedure of adding and transforming images
2. Underpinning	<ul><li>2.4 Layers recognition procedure</li><li>2.5 Smart objects</li></ul>
Knowledge	2.6 Smart objects vs normal layers
. a.o.m.ougo	2.7 Basic shape creation using the pen tool of selected
	application.
	2.8 Decoding screen size and resolution
	2.9 Image type (JPEG, GIF, or PNG)
	3.1 Creating basic shapes
	3.2 Performing image manipulation
	3.3 Creating web UI
3. Underpinning Skills	3.4 Introducing smart objects
	3.5 Using layers
	<ul><li>3.6 Slicing objects</li><li>3.7 Exporting objects to web</li></ul>
	3.8 Integrating graphic assets to webpage
	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
<ol><li>Required Attitudes</li></ol>	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	6.1 Written Test
Assessment	6.2 Demonstration
	Fram

	6.3 Oral Questioning
	6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in NSDA accredited assessment center.
	7.2 Assessment should be done by NSDA certified/ nominated assessor



Unit Code and Title	OUWD005L3V1: Work With basic JavaScript & jQuery
Nominal Hours	40 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to work with basic JavaScript & jQuery. It specifically includes identifying JavaScript Core, introducing BOM & DOM, integrating JavaScript and integrating jQuery.
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables
Identify JavaScript     Core	<ul> <li>1.1 JavaScript <u>core components</u> are identified.</li> <li>1.2 The basic <u>JavaScript platform</u> are identified.</li> <li>1.3 <u>Java Script library</u> is interpreted</li> </ul>
2. Introduce BOM & DOM	2.1 BOM (Browser Object Model) & DOM (Document Object Model) are interpreted.  2.2 Selectors are identified  2.3 BOM & DOM are applied.
3. Integrate JavaScript	3.1 JavaScript is written 3.2 JavaScript code is debugged. 3.3 JavaScript library is used.
4. Integrate jQuery	<ul><li>4.1 jQuery is interpreted</li><li>4.2 jQuery is integrated</li><li>4.3 Commonly used jQuery functions are applied</li></ul>
Range of Variables:	
Variables	Range (may include but not limited to):
1. Core components	1.1 Variables 1.2 Functions 1.3 Loops 1.4 Conditions 1.5 Switches 1.6 Objects 1.7 Arrays 1.8 Output 1.9 Comments 1.10 Data Types 1.11 Functions 1.12 Operators 1.13 Comparisons 1.14 Breaks 1.15 Errors 1.16 Validation

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Principal
National Skills Development Authority (NSDA)
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<ol><li>JavaScript platform</li></ol>	2.1 Node.js
	2.2 React.js
	2.3 Vue.js
	2.4 Angular.js
3. JavaScript library	3.1 jQuery
	3.2 MooTools
	3.3 JS charts
	3.4 ImageFX
	3.5 Datejs

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

meet the requirements of	the current version of the Unit of Competency
	Assessment required evidence that the candidate:
Critical Aspects of Competency	1.1 applied BOM and DOM 1.2 used JavaScript Library 1.3 applied jQuery functions
Underpinning knowledge	2.1 JavaScript core components 2.2 Basic java scripting concepts 2.3 BOM & DOM concepts 2.4 BOM & DOM application 2.5 JavaScript library 2.6 JavaScript concepts 2.7 jQuery
3. Underpinning skills	<ul> <li>3.1 Applying BOM and DOM</li> <li>3.2 Writing JavaScript</li> <li>3.3 Debugging JavaScript code</li> <li>3.4 Using JavaScript Library</li> <li>3.5 Integrating jQuery</li> <li>3.6 Applying jQuery functions</li> </ul>
4. Underpinning Attitude	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource Implications	The following resources must be provided: 5.1 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.2 Required learning materials.



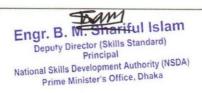
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Principal

6.1 Written Test
6.2 Oral Questioning
6.3 Demonstration
6.4 Portfolio
7.1 Competency assessment must be done in NSDA accredited assessment center.
7.2Assessment should be done by NSDA certified/ nominated assessor



Unit Code and Title	OUWD006L3V1: Work with Front-end Framework	
Nominal Hours	60 Hours	
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to work with Front-end Framework. It specially includes interpreting responsive website, interpreting front-end framework components and using bootstrap to create layout	
Elements of Competency	Performance Criteria  Bold and Underlined terms are elaborated in the Range of Variables	
Interpret responsive website	<ul> <li>1.1 Responsive website is interpreted.</li> <li>1.2 Advantages of <u>Frontend Framework</u> in responsive website is interpreted.</li> </ul>	
2. Interpret front-end	2.1 Bootstrap Front-end framework is selected	
framework components	2.2 Bootstrap documentation is interpreted	
	2.3 Fundamentals of Bootstrap is interpreted.	
	2.4 Bootstrap is integrated.	
<ol><li>Use bootstrap to create</li></ol>	3.1 Bootstrap components are used	
layout	3.2 Mockup is created	
	3.3 Mockup is tested and presented	
Range of Variables		
Variable	Range (may include but not limited to):	
	1.1 Bootstrap	
	1.2 Zurb Foundation	
<ol> <li>Front-end Framework</li> </ol>	1.3 Meteor	
	1.4 Ionic	
0.5	1.5 Materialize	
Bootstrap components	2.1. Typography	
	2.2. Forms 2.3. Buttons	
	2.4. Tables	
	2.5. Navigation	
	2.6. Modals	
	2.7. Image carousels	
	2.8. Optional JavaScript plugins	

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 competency	Assessment required evidence that the candidate: 1.1 selected bootstrap front-end framework 1.2 integrated bootstrap 1.3 created Mockup
Underpinning knowledge	2.1 Interpreting Responsive website     2.2 Bootstrap basic     2.3 Mockup Responsive website
3. Underpinning Skills	3.1 Interpreting responsive website 3.2 Installing bootstrap 3.3 integrating bootstrap 3.4 using bootstrap components 3.5 Creating Mockup 3.6 Testing and creating Mockups
4. Required Attitudes	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource Implications	The following resources must be provided: 5.1 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.2 Required learning materials.
6. Methods of Assessment	<ul><li>6.1 Written Test</li><li>6.2 Demonstration</li><li>6.3 Oral Questioning</li><li>6.4 Portfolio</li></ul>
7. Context of Assessment	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

Unit Code and Title	OUWD007L3V1: Work with CMS
Nominal Hours	40 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to work with CMS. It specially includes interpreting CMS, configuring CMS and using WordPress plugin and theme
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables
Interpret CMS	<ul> <li>1.1 <u>CMS</u> (Content Management System) is interpreted</li> <li>1.2 Advantages of CMS are identified</li> </ul>
2. Configure CMS	<ul> <li>2.1 WordPress CMS is selected</li> <li>2.2 WordPress documentation is interpreted</li> <li>2.3 WordPress is installed and configured</li> </ul>
Use WordPress plugin and theme	<ul> <li>3.1 <u>Common plugins</u> are installed.</li> <li>3.2 Custom theme is installed and configured</li> <li>3.3 Home page is created</li> </ul>
Range of Variables	
Variable	Range (may include but not limited to):
1. CMS	1.1 WordPress 1.2 Drupal 1.3 Joomla!
2. Common plugins	2.1 Slider Plugins 2.2 Image gallery 2.3 Contact form 2.4 SEO Plugins 2.5 e-Commerce plugins
	authentic, valid, sufficient, reliable, consistent and recent and of the current version of the Unit of Competency.
Critical aspects of competency	Assessment required evidence that the candidate:  1.1 installed and configured WordPress CMS  1.2 created home page with WordPress CMS
2. Underpinning Knowledge	2.1 CMS 2.2 Introduction to Joomla 2.3 Introduction to Drupal 2.4 Introduction to WordPress 2.5 WordPress documentation

	2.6 Theme
3. Underpinning Skills	<ul> <li>3.1 Interpreting CMS</li> <li>3.2 Installing and configuring WordPress</li> <li>3.3 Installing common plugins</li> <li>3.4 Installing and configuring custom theme</li> <li>3.5 Creating home page with WordPress CMS</li> <li>3.6 Using Notepad</li> <li>3.7 Introducing Macromedia Dream Weaver</li> <li>3.8 Using Joomla/ Drupal/ WordPress</li> <li>3.9 Applying CMS (Content Management System).</li> </ul>
4. Required Attitudes	<ul> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
5. Resource Implications	The following resources must be provided;  5.1 Relevant tools, Equipment, software and facilities needed to perform the activities.  5.2 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	<ul> <li>7.1 Competency assessment must be done in NSDA accredited assessment center.</li> <li>7.2 Assessment should be done by NSDA certified/ nominated assessor</li> </ul>

# Validation of Competency Standard by Standard and Curriculum Validation Committee (SCVC)

The Competency Standards for National Skills Certificate in **Web Design**, **NTVQF Level-3** Qualification is validated by SCVC on 13 January 2020 and approved by NSDA.

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This Competency Standard for **Web Design** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of 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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এনএসডিএ এর কার্যনির্বাহী বন ২২/০২/২১ ভারিং জ্বীত ৫ আ সভর জ্বাল

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