

WEB DESIGNING AND DEVELOPMENT

Trainer Guide

National Vocational
Certificate Level 3

Version 1 - July 2013

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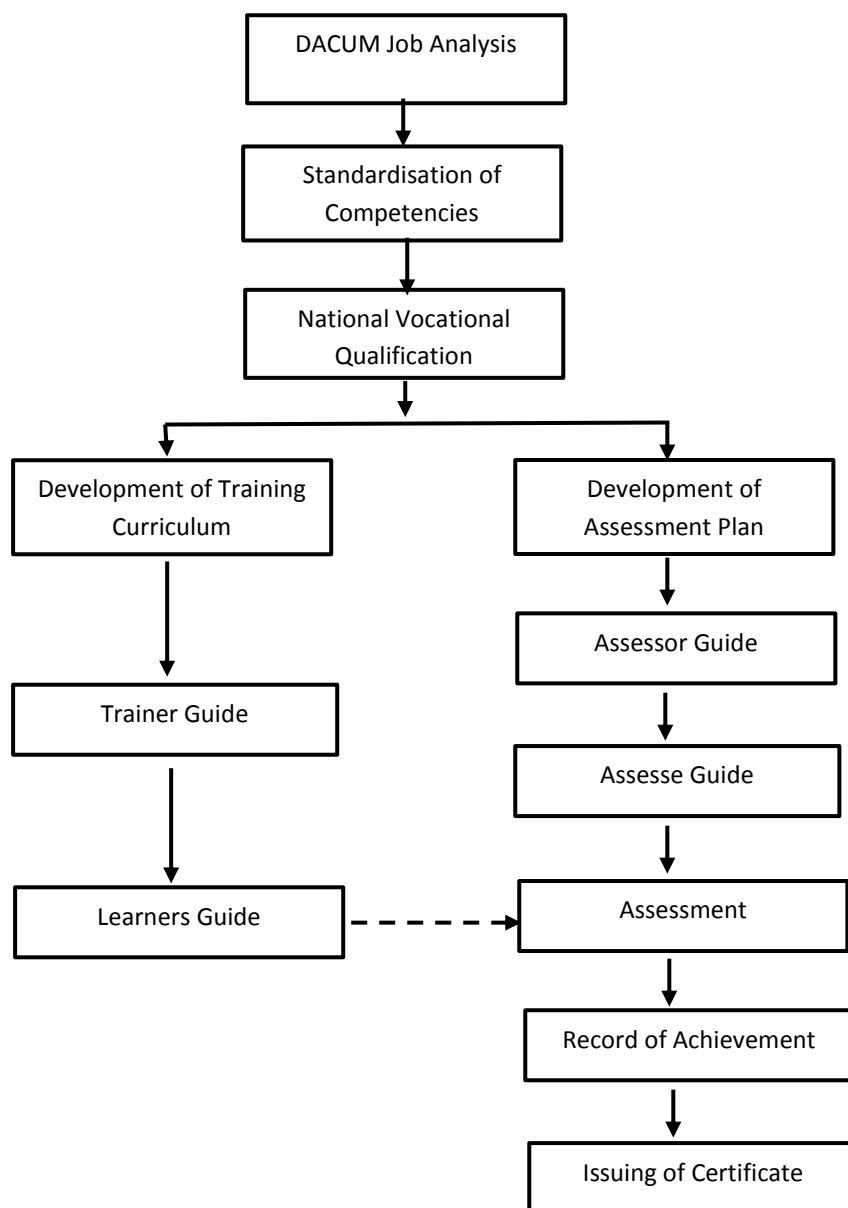
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INTRODUCTION

This Guide supports the Competency-Based Training Curricula that will enable the trainees to achieve the competency standards that have been set by the relevant industry group.

The NVQF Competency-Based Training Curricula along with the associated Training Guides and the Assessment Guides are all developed from the skill competency standards established by the Industry Advisory Group (IAG).

Figure 1 outlines the process of developing the competencies, developing the curriculum and the assessment requirements, and delivering the training program and the assessments necessary to certify achievement of the competencies.



The Trainer Guide provides guidelines and instructions to Trainers on the approaches that are required and on the organisation and delivery of the curriculum training program.

Curriculum

The Curriculum Manual is included in the Training and Learning Materials Package.

The curriculum is organised as a series of modules. Each module is broken down into a series of Learning Units. Each Learning Unit includes Learning Outcomes, Learning Elements, an estimate of the time needed, a list of materials required and the location for the learning to take place.

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials needed	Location

Lesson Plans

The Trainer will need to develop a coherent set of lesson plans for each module of the curriculum. This Guide includes a Lesson Plan Template. The Lesson Plans must be filed for later review if necessary.

Assessment

It is necessary to assess the knowledge and skills of the trainees at the completion of each module.

(See the Assessment Guide for further details)

Evaluation of Training Material

Trainers are invited to evaluate the Training Materials based on their experience of delivering the training. A template is provided to assist.

EVALUATION OF TRAINING MATERIAL

The trainers/instructors who implement this training material can inform NAVTTC promptly of any shortcomings in training material on the following format. Please consider it as one of your responsibilities.

Format

Trade:	Web Design and Development		
Training Material	Module Title & Module Code	Learning Unit Title & Learning Unit Code	Suggested amendments/ feedback/proposal
Trainer Guide			
Learner Guide			
Trainer Name:		Training Centre:	
Signature of Trainer:		Date:	

GUIDELINES FOR WRITING LESSON PLAN

The template for lesson plan has been provided at next page. These guidelines are for trainers for writing their own lesson plans which are as follows:

1. Introduce yourself and the Learning Unit, and state the Learning Outcomes of the session clearly to activate attention of learners.
2. In **Introduction** part of lesson plan state the Learning Objectives of the lesson. This allows the learners to organize their thoughts on what they will learn and to perform. Also state some questions to recall prior knowledge of learners to arouse their interest and motivation.
3. In **Body** part of lesson plan present the new information or material that is to be learned. Demonstration of a skill relevant with the Learning Unit is also stated here. Also mention the teaching and learning methods for each learning element from *Trainer Guidelines*, the relevant media including handouts, power-point slides, videos, white board and time duration for each activity in the relevant columns.
4. In **Conclusion** part list the strategies used for summarizing and reviewing the lesson delivered. Also mention the strategies for formative assessment to ensure that the transfer of knowledge and skill has been achieved.

Lesson Plan - 1			
Module: 1	Explain Internet Working		
Learning Unit: 1	Discuss the history evolution of internet		
Learning Outcomes			
At the end of the session the learners will be able to:			
<ul style="list-style-type: none"> • Define internet • Understand the working of internet • Understand history and evolution of internet 			
Methods	Key Notes	Media	Time
Introduction			
Illustrative talk	<p>Introduce the learning unit.</p> <p>Motivate the learner to create interest by asking some questions.</p> <p>Tell them about the following learning objectives:</p> <ul style="list-style-type: none"> • Learn definition of internet • Comprehend working of internet • Understand history and evolution of internet 	<p>White board</p> <p>Multi media</p>	10 Minutes
Main Body			
Illustrative talk	<p>Explain following</p> <ul style="list-style-type: none"> • Definition of internet • working of internet • History and evolution of internet 	Learner Guide	2 Hours and 40 Minutes
Conclusion			
Illustrative talk	<p>Summarize the lesson by reviewing important facts.</p>		10 Minutes
Question and answer	<p>Ask questions to ensure that the learners acquire relevant knowledge.</p>		
Total time:			03 Hours

Lesson Plan - 2

Module: 1	Explain Internet Working
Learning Unit: 2	Define and differentiate software and hardware

Learning Outcomes

At the end of the session the learners will be able to:

- Give detail of the working of software
- Explain different types of software
- Elaborate the role of software in a computer system
- Install a software on a computer
- Define hardware
- Elaborate different types of hardware
- Illustrate working of different hardware components in a computer
- Identify different hardware in a computer
- Recount the importance of hardware in a computer system
- Elucidate the hardware of a network

Methods	Key Notes	Media	Time
Introduction			
Illustrative talk	<p>Introduce the learning unit.</p> <p>Motivate the learner to create interest by asking some questions.</p> <p>Tell them about the following learning objectives:</p> <ul style="list-style-type: none"> • Define of software • Understand history of software • Identify types of software • Practice installation of a software • Experience working of software • Study role of software in a computer system • Define hardware • Understand history of hardware • Identify types of hardware • Understand role of hardware in a computer system • Identify different hardware components in a computer • Examine hardware of a network • Compare software and hardware 	White board Multi media	10 Minutes

Main Body			
Illustrative talk	<p>Explain following learning elements:</p> <ul style="list-style-type: none"> • Software • History of software • Types of software • Working of software • Role of software in a computer system • Definition of hardware • History of hardware • Types of hardware • Role of hardware in a computer system • Different hardware components in a computer • Hardware of a network • Compare software and hardware 	Learner Guide	2 Hours 40 Minutes
Practice Session	<p>Demonstrate the procedure of installation of a software</p> <p>Demonstrate working of software</p> <p>Ask learners to practice in small groups.</p>		3 Hours
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 Minutes
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			06 Hours

Lesson Plan - 3

Module: 1	Explain Internet Working
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Learning Unit: 3	Elaborate the working of different Computer Networks
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Learning Outcomes

At the end of the session the learners will be able to:

- Define a network
- Narrate the history of networks
- Give detail of network topologies
- Define the basic components of a computer network
- Illustrate the working of a computer network

Methods	Key Notes	Media	Time
Introduction			
Illustrative talk	<p>Introduce the learning unit.</p> <p>Motivate the learner to create interest by asking some questions.</p> <p>Tell them about the following learning objectives:</p> <ul style="list-style-type: none"> • Define a network • Narrate the history of networks • Give detail of network topologies • Define the basic components of a computer network • Illustrate the working of a computer network 	<p>White board</p> <p>Multi media</p>	10 Minutes
Main Body			
Illustrative talk	<p>Explain the following learning element:</p> <ul style="list-style-type: none"> • Network • History of networks • Network topologies such as bus topology, ring topology, star topology, 	Learner Guide	40 Minutes

	<p>mesh topology</p> <ul style="list-style-type: none"> • Basic components of a computer network • Working of a computer network. 		
Practice Session	<p>Demonstrate the Network topologies.</p> <p>Demonstrate components of a computer network</p> <p>Ask learners to practice in small groups.</p>		3 Hours
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 Minutes
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			06 Hours

Lesson Plan - 4

Module: 1	Explain Internet Working
Learning Unit: 4	Differentiate different types of networks

Learning Outcomes

At the end of the session the learners will be able to:

- List down the different network types in order of scale
- Recount the following:
 - ✓ Personal Area Network
 - ✓ Local Area Network
 - ✓ Campus Area Network
 - ✓ Metropolitan area network
 - ✓ Wide Area Network
 - ✓ Virtual Private Network
- Differentiate different types of networks

Methods	Key Notes	Media	Time
Introduction			
Illustrative talk	Introduce the learning unit. Motivate the learner to create interest by asking some questions. Tell them about the following learning objectives: <ul style="list-style-type: none"> • List down the different network types in order of scale • Recount the following: <ul style="list-style-type: none"> ✓ Personal Area Network ✓ Local Area Network ✓ Campus Area Network ✓ Metropolitan area network ✓ Wide Area Network ✓ Virtual Private Network • Differentiate different types of networks 	White board Multi media	10 Minutes

Main Body

Illustrative talk	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Personal Area Network • Local Area Network • Campus Area Network • Metropolitan Area Network • Wide Area Network • Virtual Private Network • Difference among network types 	Learner Guide	6 Hours 40 Minutes
Practice Session	<p>Demonstrate the working of different Networks</p> <p>Ask learners to practice in small groups.</p>		3 Hours
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 Minutes
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			10 Hours

DEMONSTRATION OF SKILL

Demonstration or modelling a skill is a powerful tool which is used in vocational training. The instructions for trainers for demonstration are as under:

1. Read the Procedure mentioned in the Learner Guide for the relevant Learning Unit before demonstration.
2. Arrange all tools, equipment and consumable material which are required for demonstration of a skill.
3. Practice the skill before demonstration to learners, if possible.
4. Introduce the skill to learners clearly at the commencement of demonstration.
5. Explain how the skill relates with the skill(s) already acquired and describe the expected results or show the objects to learners.
6. Carry out demonstration in a way that it can be seen by all learners.
7. Perform each step slowly and read out each step of the Performance Guide loudly so that all learners can hear and understand.
8. Identify critical or complex steps, or steps that involve safety precautions to be followed.
9. Explain theoretical knowledge where applicable and ask questions to learners to test their understanding.
10. Repeat critical steps in demonstration, if required.
11. Summarize the demonstration by asking questions to learners.

OVERVIEW OF PROGRAMME

Course: Web Designing and Development

Course Overview:

Introducing students to the web development process and imparting knowledge that will enable the learner to explain the internet and computer networks, World Wide Web with its history and architecture. It will also enable the learner to differentiate web protocols, types of websites and web threats. Develop the skills, knowledge and understanding of

- Designing a website using any web designing software.
- Project planning for a website design
- Implementing the software development lifecycle for any web project.
- Creating a database of a website in any Database Management System.
- Using JavaScript, html and cascading style sheets in a website System.
- Developing a website in PHP
- Developing a dynamic web application in any of the taught web development technology.

Module	Learning Unit	Duration
Module 1: Explain Internet Working	LU1: Discuss the history evolution of internet LU2: Define and differentiate software and hardware LU3: Elaborate the working of different Computer Networks LU4: Differentiate different types of networks	25 hours
Module 2: Elaborate World Wide Web	LU1 : Discuss different Eras of Web LU2 : Compare Static Websites with Dynamic Websites LU3 : Elaborate and differentiate different web browsers LU4: Compare different types of websites LU5: Identify different Web Threats and explain their security measures LU6: Highlight the process of Domain Registration and Web Hosting	65 hours

	LU7: Discuss shopping carts and E-commerce	
Module 3: Design a Website	LU1: Explain the basics of web designing LU2: Analyze different software to design website LU3: Apply appropriate Website Templates in your Website	135 hours
Module 4: Plan Website and Explain Software Development Life Cycle for Web Applications	LU1: Devise Website Project Plan LU2: Utilize the Software Development Life Cycle in a web project	50 hours
Module 5: Use Databases in Web Development	LU1: Discuss the basic and historical perspectives of databases LU2: Differentiate different Database Management Systems (DBMS) LU3: Create database of a website in a Database Management System	75 hours
Module 6: Develop Website using Client Side Scripting Languages	LU1 : Write HTML code for a Website LU2 : Use JavaScript in a website LU3 : Implement Cascading Style Sheets (CSS) in a website	100 hours
Module 7: Develop Website using Server Side Scripting Languages	LU1: Develop a website using PHP LU2: Develop a website using ASP.Net	200 hours
Module 8: Design and Present Final Project	LU1: Develop a dynamic website in ASP.Net / PHP LU2: Prepare a project document	100 hours
Module 9: Perform Duties and Exhibit Rights at the	LU1: Demonstrate Ethics and Professional Conduct LU2: Plan Business-Process	30 hours

workplace	Activities LU3: Develop awareness of rights	
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TRAINER GUIDELINES

Module 01: Explain Internet Working

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Discuss the history and evolution of internet	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Internet • working of internet • History and evolution of internet <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide
LU2: Define and differentiate software and hardware	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Software • History of software • Types of software • Working of software • Role of software in a computer system • Definition of hardware • History of hardware • Types of hardware • Role of hardware in a computer system • Different hardware components in a computer • Hardware of a network • Compare software and hardware <p>Demonstrate the procedure of installation of a software</p> <p>Demonstrate working of software</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide
LU3: Elaborate the working of different Computer Networks	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Network • History of networks • Network topologies such as bus topology, ring topology, star topology, mesh topology 	Class Room/ Computer Lab	Learner's Guide

	<ul style="list-style-type: none"> • Basic components of a computer network • Working of a computer network. <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
LU4: Differentiate different types of networks	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Personal Area Network • Local Area Network • Campus Area Network • Metropolitan Area Network • Wide Area Network • Virtual Private Network • Difference among network types <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide

Module 02: Elaborate World Wide Web			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Discuss different Eras of web	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • World wide web • Website and webpage • History of web • Web 1.0 (read web), • Web 2.0 (social web), and • Web 3.0 (semantic web) • Comparison of web 1.0, web 2.0 and web 3.0 • Examples of web 1.0, web 2.0 and web 3.0 <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide
LU2: Compare Static websites with Dynamic websites	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Static website • Dynamic website • Workflow of a dynamic website • Differentiation between static and dynamic websites • Examples of static and dynamic websites <p>Demonstrate procedure to design architecture of a static website</p> <p>Demonstrate procedure to design architecture of a dynamic website</p> <p>Demonstrate procedure to examine workflow of a static website</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide
LU3: Elaborate and differentiate different web browsers	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Web browser • working of a web browser <p>Demonstrate procedure to install and use</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

	<p>Internet Explorer</p> <p>Demonstrate procedure to install and use Mozilla Firefox</p> <p>Demonstrate procedure to install and use Google Chrome</p> <p>Demonstrate procedure to install and use Safari</p> <p>Study features/options of different web browsers</p> <p>Compare different web browsers</p> <p>Study cross browser compatibility of websites</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
<p>LU4: Compare different types of websites</p>	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Different types of websites such as personal websites, information websites, web portals, webmail, social networking websites, blogs, forums, wiki websites, search engine websites, community websites, News websites etc. • Examples of different types of websites <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p>Class Room/ Computer Lab</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>
<p>LU5: Identify different Web Threats and explain their security measures</p>	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Different web threats such as Viruses, Computer Worms, Trojans, Malware, SQL Injection, Cross-site Scripting (XSS), Email Spam, Phishing, Denial-of-service attack (dos Attack) etc. • Security measures for different web threats <p>Demonstrate procedure to install an antivirus software</p> <p>Demonstrate procedure to use antivirus to scan a computer for viruses and removal of viruses.</p> <p>Ask learners to practice in small groups.</p>	<p>Class Room/ Computer Lab</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>

	<p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
<p>LU6: Highlight the process of domain registration and Web Hosting</p>	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Internet service providers (ISPs) • Web hosting process • Domain registration process <p>Demonstrate procedure to get the web hosting package from the ISP</p> <p>Demonstrate procedure to get domain registration package from the ISP</p> <p>Demonstrate procedure to upload a website to the web server / web space provided by the ISP</p> <p>Demonstrate procedure to test the uploaded website on a web browser</p> <p>Demonstrate procedure to make selection of any ISP for the website</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p>Class Room/ Computer Lab</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>
<p>LU7: Discuss shopping carts and ecommerce</p>	<p>Explain E-commerce</p> <p>Explain some common business applications of E-commerce</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p>Class Room/ Computer Lab</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>

Module 03: Design a Website			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Explain the basics Website designing	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • website designing • history of website designing • types of Design • basic elements of design • Web Design Standards and Principles • Difference between web design and web development • difference between web design and graphics designing <p>Demonstrate procedure to exhibit understanding of the importance of design in a website</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Analyze different software to design a website	<p>Demonstrate the procedure of installation of different software to design a Website.</p> <p>Demonstrate the procedure to design in designing software like Adobe Photoshop, Macromedia Dreamweaver, Microsoft FrontPage, Microsoft Publisher, Adobe Flash etc.</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU3: Apply appropriate website Templates in your website	<p>Explain a website template</p> <p>Demonstrate the procedure to search free and paid website templates on internet</p> <p>Demonstrate the procedure to download website templates to a computer</p> <p>Demonstrate the procedure to test website templates using any web browser</p> <p>Demonstrate the procedure to execute editing of different website templates in any web editor such as Macromedia</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

	<p>Dreamweaver</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
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Module 04: Plan Website and Explain Software Development Life Cycle for Web Applications

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Devise Website Project Plan	<p>Demonstrate the procedure to arrange and manage project meetings</p> <p>Demonstrate the procedure to gather and implement the project requirements</p> <p>Demonstrate the procedure to execute storyboarding</p> <p>Demonstrate the procedure to develop timelines</p> <p>Demonstrate the procedure to carry out financial evaluation (budgeting and costing)</p> <p>Explain differences between functional requirements and non-functional requirements</p> <p>Explain the significance of client management</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Utilize the software development life cycle in a web project	<p>Demonstrate the procedure to recount software development life cycle:</p> <ul style="list-style-type: none"> • Project analysis phase • Design phase • Implementation phase • Testing phase • Maintenance and support phase <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

Module 05: Use Databases in Web Development			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Discuss the basic and historical perspectives of databases	<p>Demonstrate database concepts such as Row, Column, Table, Relationships, Quires, Normalization, Denormalization, Database, Relational Database Management System, Primary Key, Foreign Key, indexing, Entity Relationship Diagram etc.</p> <p>Explain basic database concepts such as Row, Column, Table, Relationships, Quires, Normalization, Denormalization, Database, Relational Database Management System, Primary Key, Foreign Key, indexing, Entity Relationship Diagram etc.</p> <p>Explain differences between free database and licensed database</p> <p>Explain the role of database in web applications</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Differentiate different Database Management Systems (DBMS)	<p>Explain Options/Features of different database management systems</p> <p>Demonstrate the procedure of installation of different database management systems on a computer</p> <p>Demonstrate the procedure to examine the features and options of different database management systems like Microsoft Access, Microsoft SQL Server and MySQL</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU3: Create a database of a website in a database management system.	<p>Demonstrate the procedure of database designing of a web project</p> <p>Demonstrate the procedure to create Tables, Draw Entity Relationship Diagram</p> <p>Demonstrate the procedure to carry out Normalization / De-normalization of the Entity Relationship Diagram</p> <p>Demonstrate the procedure to implement</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

	<p>indexing and cascading to the database</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
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Module 06: Develop Website using Client Side Scripting Languages			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Write HTML code for a Website	<p>Explain Hypertext Mark-up Language (HTML)</p> <p>Demonstrate the procedure of implementation of HTML concepts such as HTML Editors, Elements, Attributes, Headings, Paragraphs, Formatting, Links, Head, Images Tables, Lists, Block, Layout, Forms, IFrames, Colours, Entities, URL Encode, Form, input types, Media, Object, Audio, and Video.</p> <p>Demonstrate the procedure to employ HTML in Macromedia Dreamweaver / Microsoft FrontPage.</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Use JavaScript in a website	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • client side scripting language • JavaScript <p>Demonstrate the procedure to implement the basic JavaScript concepts such as JavaScript Statements, Objects, Output, Comments, Variables, Data Types, Functions, Operators, Comparisons, Conditions, Switch, For Loop, While Loop, Breaks, Errors and Validation.</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU3: Implement Cascading Style Sheets (CSS) in a website	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • client side scripting language • Cascading Style Sheets (CSS) <p>Demonstrate the procedure to implement basic concepts of CSS such as CSS Syntax, Id and Class, Styling of Backgrounds, Text, Fonts, Links, Lists & Tables, CSS Border, Outline, Margin, Padding, Dimension, Positioning, Floating, Align, Colours, and Colour HEX.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

	<p>Demonstrate the procedure to employ CSS using Macromedia Dreamweaver / Microsoft FrontPage</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
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Module 07: Develop Website using Server Side Scripting Languages			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Develop a website using ASPNET	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Asp.net • Dot net framework • Environment of visual studio.net / visual web developer • Views of a web page • Server controls <p>Demonstrate the procedure to employ Asp.Net</p> <p>Demonstrate the procedure to install Visual Studio.Net / Visual Web Developer to a computer</p> <p>Demonstrate the procedure to use toolbars and windows of Visual Studio.Net / Visual Web Developer</p> <p>Demonstrate the procedure of implementation of the HTML Controls such as:</p> <ul style="list-style-type: none"> • Table • Div • Image • Text area etc. <p>Demonstrate the procedure to apply the Server Controls such as:</p> <ul style="list-style-type: none"> • Button • Textbox • Hyperlink • Radio Button • Calendar • Panel • Label etc. <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Develop a website using PHP	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • PHP • PHP Editor • PHP Environment and Syntax • Dynamic web pages in PHP <p>Demonstrate the procedure to install PHP</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.


	<p>Editor such as: Macromedia Dreamweaver</p> <p>Demonstrate the procedure to employ the PHP Environment and Syntax</p> <p>Demonstrate the procedure to implement the:</p> <ul style="list-style-type: none"> • PHP Variable Types • PHP Constants • Operator Types • PHP Decision Making • PHP Loop Types • PHP Arrays • PHP Strings • PHP GET and POSTPHP Files • PHP Functions • PHP Cookies and Sessions • PHP Sending Emails • PHP File Uploading • PHP Coding Standard • PHP Predefined Variables • PHP Regular Expressions • PHP Error Handling • PHP Built-in Functions <p>Demonstrate the procedure to install and configure MySQL database with a PHP website</p> <p>Demonstrate the procedure to create dynamic web pages in PHP</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
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Module 08: Design and Present Final Project			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Develop a dynamic website in ASP.Net / PHP	<p>Demonstrate the procedure of designing an interface in designing software.</p> <p>Demonstrate the procedure of development of a static or dynamic website in a web development software</p> <p>Demonstrate the procedure of practicing Software Development Life Cycle (SDLC) phases in a web project</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.
LU2: Prepare a project document	<p>Demonstrate the procedure to create Web project's Analysis document</p> <p>Demonstrate the procedure to create web project's Design document</p> <p>Demonstrate the procedure to create Web project's Implementation document</p> <p>Demonstrate the procedure to create Web project's Testing document</p> <p>Demonstrate the procedure to create Web project's Deployment document</p> <p>Demonstrate the procedure to create Web project's Maintenance and Support document</p> <p>Demonstrate the procedure to create Web project's User Manual</p> <p>Ask learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.


Module 09: Perform Duties and Exhibit Rights at the workplace			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1: Demonstrate Ethics and Professional Conduct	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Responsibility • Respect • Fairness • Honesty <p>Ask learners to perform a class activity related to responsibility.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide
LU2: Plan Business-Process Activities	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Provide due assistance to in-line manager • Define activities • Estimate time, • Achieve work breakdowns • Resource levelling due to work load <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide
LU3: Develop awareness of rights	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Inform ourselves and uphold the workplace policies. • Report Illegal Conduct to Appropriate Management. • Protect proprietary or confidential information. <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide


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