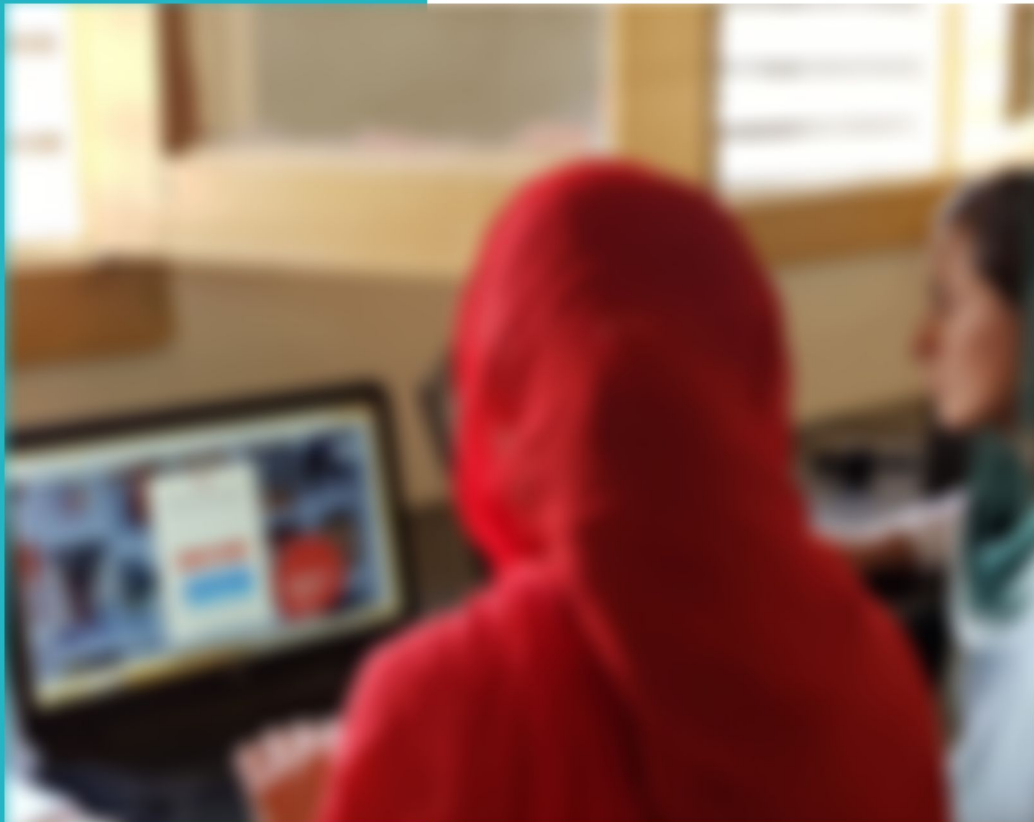


E - COMMERCE



TRAINER GUIDE

National Vocational Certificate Level 4

Version 1 - July 2013



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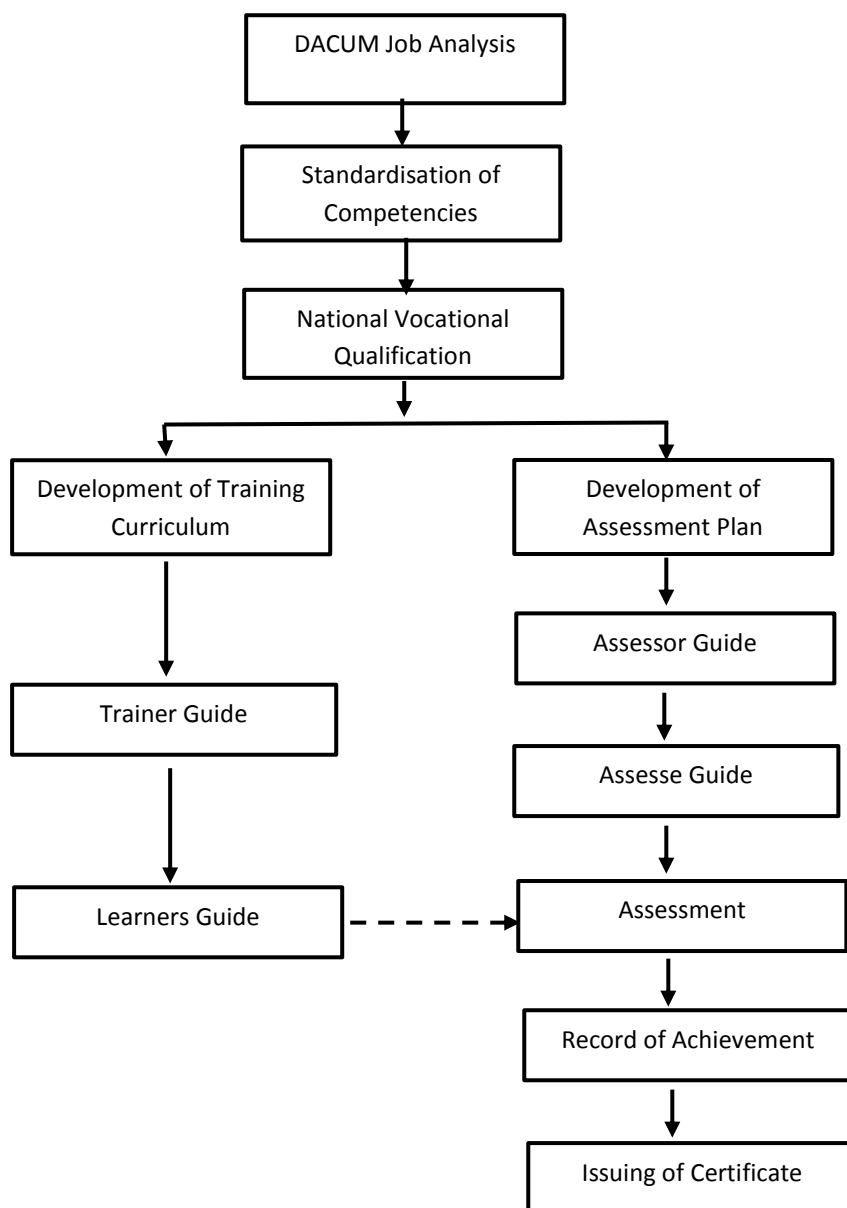
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INTRODUCTION

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:			
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 PLANS

Dear Instructors,

Model Lesson Plans for one module have been provided in this trainer guide. A format and guidelines for writing Lesson Plans have also been provided in the succeeding pages. You are advised to prepare your own lesson plans for the remaining Learning Units using the suggested format and guidelines.

Lesson Plan - 1

Module: 1	Business Analysis
Learning Unit: 1	Concept and Terminologies

Learning Outcomes

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

- Understand Evolution of Electronic Commerce
- Categorize E-Commerce Sites
- Identify types of E-Commerce Site
- Comprehend concerns related to E-Commerce (Business, Consumer)

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"> • Understanding Evolution of E-Commerce • Categorize E-Commerce Sites • Identify types of E-Commerce Site • Comprehend concerns related to E-Commerce (Business, Consumer) 	White board Multi media	10 min
Main Body			
Illustrative talk	<p>Explain Time line for the development and gradual growth of E-Commerce</p> <p>Describe Inception of E-tailing or "virtual storefronts", and Electronic Data Interchange (EDI)</p> <p>Explain Online Transaction Processing using Electronic Funds Transfer (EFT)</p> <p>Explain categories of E-Commerce</p>	Learner Guide	40 min

	<p>Explain Types of E-Commerce sites</p> <p>Describe E-Commerce Issues</p>		
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 min
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			02 hrs

Lesson Plan - 2

Module: 1	Business Analysis		
Learning Unit: 2	Market Intelligence		
Learning Outcomes			
At the end of the session the learners will be able to:			
<ul style="list-style-type: none"> • Identify the market demands for Products, Services, and Tasks. • Gather and analyse the data • Make decision in determining market opportunity. 			
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"> • Identify the market demands. • Gather and analyse the data • Decision making for market opportunity. 	<p>White board</p> <p>Multi media</p>	10 min
Main Body			
Illustrative talk	<p>Explain Trend Analysis.</p> <p>Explain Application of Competitive Intelligence.</p> <p>Describe decision making using What-if scenario (Cost-Benefit Analysis) for Market and Product/Service segmentation.</p>	Learner Guide	40 min
Conclusion			

Illustrative talk	Summarize the lesson by reviewing important facts.		10 min
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			02 hrs

Lesson Plan - 3

Module: 1	Business Analysis		
Learning Unit: 3	Requirement Analysis		
Learning Outcomes			
At the end of the session the learners will be able to:			
<ul style="list-style-type: none"> • Process requirement Documents. • Use technical writing skills 			
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"> • Process requirement Documents. • Use technical writing skills. 	White board Multi media	10 min
Main Body			
Illustrative talk	Demonstrate creation of functional requirements. Explain Requirements Traceability Matrix.	Learner Guide	40 min
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 min
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			02 hrs

Lesson Plan - 4

Module: 1	Business Analysis		
Learning Unit: 4	Testing		
Learning Outcomes			
At the end of the session the learners will be able to:			
<ul style="list-style-type: none"> • Create software design(s) • Develop links with Requirements traceability 			
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"> • Create software design. • Develop links with Requirements traceability 	<p>White board</p> <p>Multi media</p>	10 min
Main Body			
Illustrative talk	<p>Explain and demonstrate designing techniques of</p> <ul style="list-style-type: none"> • DFD, • ERD, • OMT and • UML 	Learner Guide	40 min
Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 min
Question and answer	Ask learners to practice in small groups.		
Total time:			02 hrs

Lesson Plan - 5

Module: 1	Business Analysis
Learning Unit: 5	Test Case Design

Learning Outcomes

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

- Develop test Cases with requirements
- Design test case for each Use Case of design
- Identify different scenarios
- Apply logical conditions
- Integrate traceability options.

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"> • Test Case development. • Design test case for each Use Case. • Procedure to Identify different scenarios • Techniques to Apply logical conditions • Integrate traceability options 	<p>White board</p> <p>Multi media</p>	10 min
Main Body			
Illustrative talk	<p>Demonstrate techniques to analyse Use Case using UML</p> <p>Demonstrate Procedure to design test case from use case</p> <p>Demonstrate designing conditions from operators (==, !=, , &&, <=, >=, <, >)</p> <p>Explain specialized Testing Circumstances (Stress, Load-Balancing, Page Level Security, etc.)</p>	<p>Learner Guide</p>	40 min

Conclusion			
Illustrative talk	Summarize the lesson by reviewing important facts.		10 min
Question and answer	Ask questions to ensure that the learners acquire relevant knowledge.		
Total time:			02 hrs

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: E-Commerce

Course Overview:

Introducing learners to the E-Commerce and imparting knowledge that will guide them on designing and developing Electronic Commerce web application. Develop the skills, knowledge and understanding of

- Concept and Terminologies of E-commerce.
- Analysis, design and test cases for requirements.
- Designing and developing a web based software application (E-Commerce enabled) in any web design/development software.
- Importance and the capability to test, validate and verify the quality features of the E-Commerce application/business.
- Efficient E-Marketing strategies in accordance with the Vision and Mission statement of the organization driven by Electronic means.
- Code of Ethics and Professional Conduct.
- Improving Planning Capabilities.
- Awareness to Provision of applicable territorial Taxation / Business / Employment Rights for duties & rights at workplace.

Module	Learning Unit	Duration
Business Analysis	LU-1: Explain Concept and Terminologies LU2: Market Intelligence LU3: Requirement Analysis LU4: Requirement Designing LU5: Test Case Design	340 hours
Web Designing / Development	LU1: Software Languages {In Compliance with IT Trade of Web Design and Development} LU2: Framework LU3: Database LU4: Security (HTTPS)	152 hours

	LU5: Payment Modes	
Quality Assurance	LU1: Validation and Verification LU2: Testing	145 hours
E-Marketing	LU1: SEO (Search Engine Optimization) LU2: SCM (Supply Chain Management) LU3: Social Media Marketing	112 hours
Legal and Ethical Aspects	LU1: Ethics and Professional Conduct LU2: Planning of Business-process activities LU3: Awareness to Rights	54 hours

TRAINER GUIDELINES

Module-01: Business Analysis

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
1: Concept and Terminologies	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Evolution of E-Commerce. • E-tailing or "virtual storefronts • Electronic Data Interchange (EDI) • Electronic Funds Transfer (EFT) • Categories of E-Commerce • Types of E-Commerce Sites • E-Commerce Issues <p>Ask learners to perform a class activity related to E-commerce.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p style="text-align: center;">Class Room</p>	<p style="text-align: center;">Learner's Guide, Handouts, Computer, Multimedia.</p>
2: Market Intelligence	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Trend analysis • Application of Competitive Intelligence • Decision making <p>Ask learners to perform a class activity related to Market Segmentation.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p style="text-align: center;">Class Room</p>	<p style="text-align: center;">Learner's Guide, Handouts, Computer, Multimedia.</p>
3: Requirement Analysis	<p>Demonstrate creation of functional Requirements.</p> <p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none"> • Requirements Traceability Matrix <p>Ask Learners to practice in small groups.</p> <p>Summarize the lecture.</p>	<p style="text-align: center;">Class Room/ Computer Lab</p>	<p style="text-align: center;">Learner's Guide, Handouts, Computer, Multimedia.</p>

	Arrange Question/Answer Session.		
4: Requirement Designing	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> Techniques of designing DFD, ERD, OMT and UML <p>Demonstrate designing techniques of DFD, ERD, OMT and UML</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.
5: Test Case Design	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> Techniques to analyse Use Case using UML Design conditions from operators (==, !=, , &&, <=, >=, <, >) Specialized Testing Circumstances (Stress, Load-Balancing, Page Level Security, etc.) <p>Demonstrate procedure to design test case from use case</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.

Module-02: Web Design / Development

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
1: Software Languages	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• Coding standards• OOP concepts• Unit testing• Coding terminologies• Coding techniques• Development of site map <p>Demonstrate procedure of development of a sitemap.</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.
2: Framework	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• Frameworks• Developing software application using Frameworks.• Framework Libraries. <p>Demonstrate procedure of development of a E-Commerce application using frameworks.</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.
3: Database	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none">• Entity classes• Database designing• Relationships• Entity Relationship Diagram• Normalization / De-normalization• keys• Query designing	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

	<ul style="list-style-type: none"> • Use of database design tool <p>Demonstrate designing a database.</p> <p>Ask Learners to practice in small groups.</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>		
4: Security (HTTPS)	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Secure Socket Layer • Secure Electronic Transfer • Implementation of Cryptology Standards • Integrate Firewall configuration • Deploy Security Enhanced Linux • Anti-Hacking tools • Short comings of Internet protocols <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide, Handouts, Computer, Multimedia.
5: Payment Modes	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none"> • Payment modes • Web Service Integration with VeriSign • Working of financial networks • Payment protocol <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room/ Computer Lab	Learner's Guide, Handouts, Computer, Multimedia.

Module-03: Quality Assurance

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
1: Validation and Verification	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• Gape analysis• Quality Assurance Audit• Quality Control <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide, Handouts, Computer, Multimedia.
2: Testing	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• Usage of testing tools• Testing techniques including Quality Measurement Indicator <p>Demonstrate procedure of testing.</p> <p>Ask Learners to practice in small groups..</p> <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	Class Room	Learner's Guide, Handouts, Computer, Multimedia.

Module-04: E-Marketing

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
1: Search Engine Optimization	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• SEO Methods• SEO techniques• SEO keywords• Use of SEO tools <p>Demonstrate SEO techniques</p> <p>Demonstrate employing SEO key words</p> <p>Demonstrate SEO techniques</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>
2: Supply Chain Management	<p>Give illustrative talk on the following learning elements:</p> <ul style="list-style-type: none">• Procurement Cycle• Techniques to Manage Goods• Track and trace of the product delivery to customer.• Incorporation of Outsourcing in logistics.• Reverse Supply Chain Management.• EDI methodologies and format. <p>Summarize the lecture.</p> <p>Arrange Question/Answer Session.</p>	<p>Class Room</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>
3: Social Media Marketing	<p>Give illustrative talk on the following learning element:</p> <ul style="list-style-type: none">• Social networking sites.• Familiarity of banner ads integration.• Skills to update	<p>Class Room/Computer Lab</p>	<p>Learner's Guide, Handouts, Computer, Multimedia.</p>

	<p>brand/product/service blogs.</p> <ul style="list-style-type: none">• Direct marketing <p>Demonstrate Brand Page creation on Social Media Sites.</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-05: Legal and Ethical Aspects

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
1: 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
2: Planning of 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
3: Awareness to 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

