

Code	Sub-Module Units	Content	Total (Hours)
		<ul style="list-style-type: none"> Application software installation • Limitations for operating system/application software installation • Operating system accessories 	
5.1.06	Operating System	<ul style="list-style-type: none"> • Definition • Types • Functions of operating systems 	6
5.1.07	Directory and File Management	<ul style="list-style-type: none"> • Definition of folders and files • Types of files • Function of files and folders • Creating folders and files • Manipulation of folders / files 	6
5.1.08	Storage Media	<ul style="list-style-type: none"> • Definition of memory • Storage concepts • Types of storage media 	6
5.1.09	Data Management	<ul style="list-style-type: none"> • Data back-up • Methods of data security • Methods of data Back-up • Data recovery procedures 	8
5.1.10	Basic Computer Networking	<ul style="list-style-type: none"> • Computer networking • Types of computer networking • Importance of computer networking • Networking components 	10
5.1.11	Computer Security	<ul style="list-style-type: none"> • Hardware security • Safe Power regulation equipment • Anti-virus software 	4
5.1.12	Office Automation	<ul style="list-style-type: none"> • Definition of Office Automation • Ways of office automation 	8

Code	Sub-Module Units	Content	Total (Hours)
5.1.13	Internet	<ul style="list-style-type: none"> • Meaning of Internet • Electronic mail (E-mail) • Historical development of internet • Importance of internet • Internet connectivity • Internet services 	14
5.1.14	Electronic Mail (E-Mail)	<ul style="list-style-type: none"> • Definition of e-mail • E-mail software • Requirements for connectivity 	4
5.1.15	Other Networks	<ul style="list-style-type: none"> • Definitions of intranets • Importance of intranets • Features of intranets • Extranets 	4
5.1.16	Emerging Issues and Trends in ICT	<ul style="list-style-type: none"> • Impact of computers in society • Challenges in computer technology • Coping mechanisms 	4
Total			120



5.1.01	INTRODUCTION TO ICT		Practice
	Theory	5.1.01P	<i>Specific Objective</i> By the end of the sub-module unit, the trainee should be able to identify different types of computers.
5.1.01T	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to:		
	a) define common ICT concepts	5.1.01P1	<i>Content</i> Visit large corporations, specialized industries and local firms to identify the different types of computers in use.
	b) describe the classification of computers.		
5.1.01C	Competence The trainee should have the ability to classify computers.		<i>Suggested Teaching/Learning Resources</i> Textbooks - Magazines - White board - Resource persons - Charts - Dummy computers
	<i>Content</i>		
5.1.01T1	Definition of ICT concepts		<i>Suggested Teaching/Learning Activities</i> - Group discussions - Demonstration - Observation - Illustrations
	- Computer		
	- Data		
	- Information		
	- Information systems		
	- Communication systems		
5.1.01T2	Classification of computers		<i>Suggested Evaluation Methods</i> - Questions and Answers - Practical Tests
	- According to generation		
	- According to size/power		
	- According to processing		
	- According to purpose		

5.1.02

COMPUTER STRUCTURE

Theory

5.1.02T

Specific Objectives

By the end of the sub-module unit, the trainee should be able to:

- outline the physical parts of a computer and its peripheral devices
- explain the functional units of a computer

5.1.02C

Competence

The trainee should have the ability to illustrate the functional parts / units of a computer.

Content

5.1.02T1

Computer parts and peripherals

- physical structure of a computer system

5.1.02T2

Functional units of a computer and its peripherals

- Input / output devices
- Control unit
- Arithmetic logic units
- Main memory
- Backing storage
- Communication channels

Practice

5.1.02P

Specific Objectives

By the end of the sub-module unit, the trainee should be able to:

- draw the physical structure of a computer and its peripheral devices
- illustrate the computer electronic circuit.

Content

5.1.02P1

Physical components

- System unit
- Mouse
- Keyboard
- Monitor
- Disk drives
- Others

5.1.02P2

Electronic circuit

- Arithmetic logic unit
- Control unit
- Main memory
- Input/output devices
- Backing storage
- Bus architecture
- Others

Suggested Teaching/ Learning Resources

- Internet
- Textbooks
- Magazines
- White board
- Dummy computers

Suggested Teaching/ Learning Activities

- Demonstration
- Observation
- Practice exercises
- Illustrations

	<i>Suggested Evaluation Methods</i>			<i>Content</i>
	- Written Tests - Oral presentations - Practical Tests	5.1.03P1		Care of computer and its peripherals - Blowing and cleaning a computer with the right materials - Covering of computers when not in use - Others
5.1.03	COMPUTER CARE			
	Theory			
5.1.03T	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: a) explain the importance of computer care b) discuss health issues in computer environment.			<i>Suggested Teaching/Learning Resources</i> - Textbooks - White board - Dummy computers
				<i>Suggested Teaching/Learning Activities</i> - Demonstration - Observation - Practice exercises - Illustrations
5.1.03C	Competence The trainee should have the ability to service office computers			<i>Suggested Evaluation Methods</i> - Written Tests - Questions and Answers - Practical Tests
5.1.03T1	<i>Content</i> Importance of computer care			
5.1.03T2	Health issues in computer environment - Ergonomics - Personal health - Others	5.1.04		SOFTWARE AND HARDWARE
	Practice			Theory
5.1.03P	<i>Specific Objective</i> By the end of the sub-module unit, the trainee should be able to take good care of a computer and its peripherals.	5.1.04T		<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: a) define hardware and software b) explain the hardware components c) explain types of software



	d) outline the factors to consider when purchasing hardware/software.	5.1.04P1	<p><i>Content</i></p> <p>Hardware components</p> <ul style="list-style-type: none"> - Input/output devices - CPU components - Storage devices and others <p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Internet - Textbooks - Magazines - White board - Dummy computers <p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Observation - Practice exercises - Illustrations <p><i>Suggested Evaluation Methods</i></p> <ul style="list-style-type: none"> - Questions and Answers - Practical Tests
5.1.04C	<p>Competence</p> <p>The trainee should have the ability to make a decision on the right hardware /software to purchase or use.</p>		
5.1.04T1	<p><i>Content</i></p> <p>Definitions terms</p> <ul style="list-style-type: none"> - Hardware - Software 		
5.1.04T2	<p>Hardware component</p> <ul style="list-style-type: none"> - Output devices - Input devices - Central processing unit (CPU) - Storage media - Other 		
5.1.04T3	<p>Software</p> <ul style="list-style-type: none"> - Systems - Applications 		
5.1.04T4	<p>Factors to consider when purchasing hardware/software.</p> <ul style="list-style-type: none"> - Hardware considerations - Software considerations 	5.1.05	<p>COMPUTER INSTALLATION</p> <p>Theory</p>
5.1.04P	<p>Practice</p> <p><i>Specific Objective</i></p> <p>By the end of the sub-Module unit, the trainee should be able to identify various hardware components.</p>	5.1.05T	<p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <p>a) explain the installation of basic computer components</p>

	<ul style="list-style-type: none"> b) describe the procedure of installing operating systems/application software c) explain the limitations for the operating system/application software installation d) describe operating system accessories. 	5.1.05P	Practice
5.1.05C	<p>Competence The trainee should have the ability to:</p> <ul style="list-style-type: none"> i) connect computer peripherals ii) install operating system and applications software. 		<p><i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to:</p> <ul style="list-style-type: none"> a) connect the various components of a computer b) prepare a disk for installation of operating system(s) c) install operating system to a computer d) install application software to a computer
	<p><i>Content</i></p> <p>5.1.05T1 Computer components installation</p> <ul style="list-style-type: none"> - Connecting to mains - Connecting to Uninterruptible Power Supply - Connecting to keyboard, mouse, monitor, printer, CPU and other peripherals 	5.1.05P1	<p><i>Content</i> Connecting computer peripherals - Power, keyboard, mouse, UPS, printer, CPU, others.</p>
		5.1.05P2	Disk preparation - disk partitioning - disk formatting
		5.1.05P3	Operating system installation
		5.1.05P4	Application software installation
5.1.05T2	Installation of operating system/application software		<p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Internet - Textbooks - Magazines - White board - Dummy computers
5.1.05T3	Limitations for the operating system/application software installation		
5.1.05T4	Operating system accessories		

	<ul style="list-style-type: none"> b) describe the procedure of installing operating systems/application software c) explain the limitations for the operating system/application software installation d) describe operating system accessories. 	5.1.05P	<p>Practice</p> <p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <ul style="list-style-type: none"> a) connect the various components of a computer b) prepare a disk for installation of operating system(s) c) install operating system to a computer d) install application software to a computer
5.1.05C	<p>Competence</p> <p>The trainee should have the ability to:</p> <ul style="list-style-type: none"> i) connect computer peripherals ii) install operating system and applications software. 		
	<p><i>Content</i></p> <p>Computer components installation</p> <ul style="list-style-type: none"> - Connecting to mains - Connecting to Uninterruptible Power Supply - Connecting to keyboard, mouse, monitor, printer, CPU and other peripherals 	5.1.05P1	<p><i>Content</i></p> <p>Connecting computer peripherals</p> <ul style="list-style-type: none"> - Power, keyboard, mouse, UPS, printer, CPU, others.
5.1.05T1		5.1.05P2	Disk preparation
		5.1.05P3	Operating system installation
		5.1.05P4	Application software installation
5.1.05T2	Installation of operating system/application software		<p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Internet - Textbooks - Magazines - White board - Dummy computers
5.1.05T3	Limitations for the operating system/application software installation		
5.1.05T4	Operating system accessories		

	<p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Observation - Practice exercises - Illustrations 	5.1.07T3	<p>Functions of directories and files</p> <ul style="list-style-type: none"> - Directories - Files <p>Practice</p>
5.1.07	<p><i>Suggested Evaluation Methods</i></p> <ul style="list-style-type: none"> - Questions and Answers - Practical Tests <p>DIRECTORY AND FILE MANAGEMENT</p>	5.1.07P	<p><i>Specific Objectives</i></p> <p>By the end of the sub-Module unit, the trainee should be able to:</p> <ol style="list-style-type: none"> a) create folders and files b) manipulate folders and files
5.1.07T	<p>Theory</p> <p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <ol style="list-style-type: none"> a) define directories and files b) describe the types of files c) explain the functions of directories and files. 	5.1.07P	<p><i>Content</i></p> <p>Creating folders and files</p> <ul style="list-style-type: none"> - Folders - Manipulation of folders/files <p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Internet - Textbooks - White board - Computers
5.1.01C	<p>Competence</p> <p>The trainee should have the ability to create and manipulate files/folders.</p>		<p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Observation - Illustrations
5.1.07T1	<p><i>Content</i></p> <p>Definition of terms.</p> <ul style="list-style-type: none"> - Directories - Files 		<p><i>Suggested Evaluation Methods</i></p> <ul style="list-style-type: none"> - Assignment - Questions and Answers - Practical Tests
5.1.07T2	<p>Types of files</p> <ul style="list-style-type: none"> - System files - Application files - User files 		



5.1.08	STORAGE MEDIA	5.1.08P2	Preparation of storage media - deleting of information
	Theory		
5.1.08T	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to:	5.1.08P3	Storage of information - save/moving / copying of information
	a) define memory		
	b) explain the various storage concepts		
	c) explain the types of storage media.		
	<i>Content</i>		<i>Suggested Teaching/ Learning Resources</i> - Internet - Textbooks - Magazines - White board
5.1.08T1	Definition of memory		
5.1.08T2	Storage concepts - Bit - Byte - Word - Storage capacity and others		<i>Suggested Teaching/ Learning Activities</i> - Demonstration - Observation - Practice exercises - Illustrations
5.1.08T3	Types of storage media - Internal media - External media		<i>Suggested Evaluation Methods</i> - Oral presentations - Practical Tests
	Practice		
5.1.08P	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to:	5.1.09	DATA MANAGEMENT
	a) identify types of the storage media		Theory
	b) prepare storage media for use	5.1.09T	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to:
	c) store information in the internal and external media.		a) define the term data back-up b) explain the importance of data back-up
	<i>Content</i>		
5.1.08P1	Types of the storage media		

5.1.111	<p><i>Content</i></p> <p>Hardware security</p> <ul style="list-style-type: none"> - Physical security - Logical security 	5.1.11C	<p>Competence</p> <p>The trainee should have the ability to protect both hardware and software</p>
5.1.112	<p>Software security</p> <ul style="list-style-type: none"> - Safekeeping and handling - Registration of software - Protection from computer viruses - Integrity - Back-ups - Others 		<p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Textbooks - Magazines - White board
	<p>Practice</p>		<p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Observation - Practice exercises
5.1.11P	<p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <ol style="list-style-type: none"> a) identify power regulating equipments b) scan a computer for viruses 	5.1.12	<p><i>Suggested Evaluation Methods</i></p> <ul style="list-style-type: none"> - Questions and Answers - Practical Tests
			<p>OFFICE AUTOMATION</p>
	<p><i>Content</i></p>		<p>Theory</p>
5.1.11P1	<p>Power regulation equipment</p> <ul style="list-style-type: none"> - Uninterruptible Power Supply (UPS) - Surge and spike protectors - Others 	5.1.12T	<p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <ol style="list-style-type: none"> a) define office automation b) explain different ways of office automation.
5.1.11P2	<p>Anti-virus software</p> <ul style="list-style-type: none"> - Norton - MacAfee - AVG - Kaspersky - Others 	5.1.12C	<p>Competence</p> <p>The trainee should have the ability to use office automation tools and techniques</p>

5.1.12T1	<i>Content</i> Definition of office automation		<i>Suggested Evaluation Methods</i> - Questions and Answers - Practical Tests
5.1.1212	Ways of office automation - Internet - Teleconferencing - E-mail - Fax - E-cabinet - Electronic funds transfer - Others	5.1.13	INTERNET
	Practice		Theory
5.1.12P	<i>Specific Objective</i> By the end of the sub-module unit, the trainee should be able to identify the various office automation tools.	5.1.13T	<i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: a) define Internet b) explain the historical development of the internet c) explain the importance of the internet d) describe internet connectivity e) describe internet service.
5.1.12P1	<i>Content</i> Visit large corporations, specialized industries and local firms to identify the various office automation tools in use	5.1.14C	Competence The trainee should have the ability to connect and surf the net
	<i>Suggested Teaching/Learning Resources</i> - Textbooks - White board	5.1.13T1 5.1.13T2	<i>Content</i> Meaning of Internet Historical development of the Internet Importance of Internet Internet connectivity - Telephone lines - Modems - Internet Service Providers (ISP) - Internet software
	<i>Suggested Teaching/Learning Activities</i> - Observation - Practice exercises	5.1.13T3 5.1.13T4	

5.1.13T5	Internet services - World wide web - Electronic wave	5.1.15	ELECTRONIC MAIL (E-MAIL)
	Practice		Theory
5.1.14P	<i>Specific Objectives</i> By the end of the sub- module unit, the trainee should be able to: a) connect to internet b) surf the internet.	5.1.15T	<i>Specific Objectives</i> By the end of the sub- module unit, the trainee should be able to: a) define electronic mail b) list various E-mail software available in the market c) describe types of E- mail connectivity.
5.1.14P1	<i>Content</i> Connect to Internet - Leased line - Dial up		
5.1.14P2	Surfing the Internet - Meaning - Browsers - Search engines - Search techniques	5.1.15C	Competence The trainee should have the ability to effectively use E-mail facilities.
	<i>Suggested Teaching/ Learning Resources</i> - Internet - Textbooks - Magazines - White board - Dummy computers	5.1.15T1 5.1.15T2 5.1.15T3	<i>Content</i> Electronic mail (E-mail) - Meaning of E-mail - Importance of E-mail E-mail software Requirements for connectivity
	<i>Suggested Teaching/ Learning Activities</i> - Demonstration - Observation - Practice exercises - Illustrations	5.1.15T	Practice <i>Specific Objective</i> By the end of the sub- module unit, the trainee should be able to should be able to use E-mail facilities.
	<i>Suggested Evaluation Methods</i> - Questions and Answers - Practical Tests		

5.1.15P1	<p><i>Content</i></p> <p>E-mail facilities</p> <ul style="list-style-type: none"> - send and receive mail - Fax messages - File sharing and attachments - Contact management - Planning and conducting on-line meeting 	5.1.16C	<p>Competence</p> <p>The trainee should have the ability to effectively access information through intranets and extranets.</p>
	<p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Textbooks - Magazines - White board 	<p>5.1.16P1</p> <p>5.1.16P2</p> <p>5.1.16P3</p> <p>5.1.16P4</p>	<p><i>Content</i></p> <p>Definition of Intranets</p> <p>Importance of Intranets</p> <p>Features of Intranets</p> <p>Extranets</p> <ul style="list-style-type: none"> - Meaning of Extranets - Importance of Extranets - Limitations of Extranets
	<p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Observation 	5.1.16T	<p>Practice</p> <p><i>Specific Objective</i></p> <p>By the end of the sub-module unit, the trainee should be able to access information on Intranets and Extranets.</p>
	<p><i>Suggested Evaluation Methods</i></p> <ul style="list-style-type: none"> - Written Tests - Questions and Answers - Practical Tests 		
5.1.16	OTHER NETWORKS	5.1.16P1	<p><i>Content</i></p> <p>Visit organisations with the well established Intranets and Extranets and learn how they operate and access information</p>
	Theory		
5.1.16T	<p><i>Specific Objectives</i></p> <p>By the end of the sub-module unit, the trainee should be able to:</p> <ol style="list-style-type: none"> a) define Intranets b) explain the importance of Intranets c) describe the features of Intranets d) describe Extranets. 		<p><i>Suggested Teaching/Learning Resources</i></p> <ul style="list-style-type: none"> - Textbooks - Magazines <p><i>Suggested Teaching/Learning Activities</i></p> <ul style="list-style-type: none"> - Demonstration - Practice exercises

	<i>Suggested Evaluation Methods</i>		
	- Written Tests		- Emerging issues in networking and ICT
	- Practical Tests		- Coping with the emerging issues
5.1.17	EMERGING TRENDS AND ISSUES IN ICT	5.1.17T3	Ways of managing the effects of emerging trends and issues
	Theory		Practice
5.1.17T	<i>Specific Objectives</i>	5.1.17P	<i>Specific Objective</i>
	By the end of the sub-module unit, the trainee should be able to:		By the end of the sub-module unit, the trainee should be able to
	a) identify emerging trends in ICT		discuss the impact of emerging trends and issues in ICT on a hypothetical business.
	b) discuss challenges emerging trends and issues in ICT		
	c) discuss ways coping with challenges posed by of emerging trends issues in ICT.	5.1.17P1	<i>Content</i>
			Group discussion on impact of emerging trends and issues in ICT on a business
5.1.17C	Competence		<i>Suggested Teaching/Learning Resources</i>
	The trainee should have the ability to cope with the emerging trends and issues in ICT.		- Internet
			- Textbooks
			- Resource persons
			- Charts
5.1.17T1	<i>Content</i>		<i>Suggested Teaching/Learning Activities</i>
	Emerging trends and issues		- Group discussions
	- Technology transfer		- Demonstration
	- Economic		- Observation
	- Industrial/domestic applications		- Practice exercises
	- E-learning		
	- E-commerce		<i>Suggested Evaluation Methods</i>
	- Others		- Written Tests
5.1.17T2	Effects of emerging trends and issues in ICT		- Practical Tests

6.1.0

ENTREPRENEURSHIP

6.1.1

Introduction

This module unit is intended to equip the trainee with knowledge, skills, values and attitudes that will enable him/her plan, start and manage a personal, group, private or public business enterprise. It is also intended to instill in a trainee the drive to venture into profit making business activities.

6.1.2

General Objectives

By the end of the module unit, the trainee should be able to:

- a) acquire entrepreneurial competences necessary for planning, starting and managing a business
- b) demonstrate positive attitude towards self-employment
- c) portray desire to venture into business
- d) identify viable business opportunities
- e) demonstrate entrepreneurial behaviour in planning, starting, and managing a business enterprise
- f) demonstrate creativity and innovation in their day to day business activities
- g) appreciate the role of business planning in supply chain management
- h) cope the emerging trends and issues in entrepreneurship.

12.1.3

Module Unit Summary and Time Allocation

Code	Sub-Module Units	Content	Time (Hours)
6.1.01	Introduction to Entrepreneurship	<ul style="list-style-type: none"> • Meaning of terms • Difference between self employment and salaried employment • Contribution of entrepreneurship to national development 	2
6.1.02	Evolution of Entrepreneurship	<ul style="list-style-type: none"> • History of entrepreneurship • Myths associated with entrepreneurship in Kenya • Theories of entrepreneurship 	4
6.1.03	The Entrepreneur	<ul style="list-style-type: none"> • Types of entrepreneurs • Qualities of an entrepreneur • Roles of an entrepreneur in an enterprise 	6