MPACB302-

COMPUTER BASICS

SFEPE401 -

APPLIED COMPUTER BASICS

Competence

RQF Level: 3

Learning Hours

60

Credits: 6

Sector: **Arts and Crafts**

Trade: **Music and Performing Arts**

Module Type: **Complementary**

Curriculum: ARCMUS3001- TVET Certificate 3 in Music **and Performing Arts**

Issue Date: August 2022

Purpose statement	The Computer Basics Module provides a description of Computer Hardware and Software. This module will equip the student with basic skills required to use computers, work with data, navigate Internet websites and use different Internet applications. Through this module students will be familiar with Windows Operating Systems and UNIX/Linux and will use a wide range of application software such tabular data software, text processing software and presentation software. The students will be introduced to virtualization technologies.					
Delivery modality	**Training delivery**		**100%**	**Assessment**		**Total 100%**
	Theoretical content		40%	Formative assessment	40%	50%
	Practical work:		60%		60%	
	● Group project and presentation	20%				
	● Individual project /Work	40%				
				Summative Assessment		50%

Elements of Competency and Performance Criteria	

Elements of competency	Performance criteria
1. Describe computer system	1.1. Proper description of computer components according to their types, specifications and functions
	1.2. Proper description of operating systems according to their types and versions
	1.3. Proper description of application software according to their intent use
	1.4. Proper description of computer user ergonomic
2. Install software systems	2.1. Proper flesh installation of the operating system
	2.2. Proper manipulate the operating system
	2.3. Proper description of virtualization technology
3. Use computer applications	3.1. Proper installation of application software
	3.2. Proper usage of Tabular Data Processing Software (MS Excel, MS Access and OpenOffice Excel)
	3.3. Proper usage of Presentation Software (MS PowerPoint, OpenOffice PowerPoint)

	3.4. Proper usage of web browsers and internet
	3.5. Proper usage of Text Processing Software (MS Word and OpenOffice Word)

Course content	

Learning outcomes	**At the end of the module the learner will be able to:** 1. Describe the computer system. 2. Install software systems. 3. Use computer applications.

Learning outcome 1: Describe Computers	**Learning hours: ….**
Indicative content	

- **Describe computer componets**
  - ✓ **Key concepts(Computer,Hardware, Software)**
  - ✓ **Type of computer(Desktop, Laptop, Servers, PDA, Smart phones)**
  - ✓ **Computer hardware(Computer, Peripherals)**
  - ✓ **Computer components(Central Unit, Monitor, Keyboard, Mouse)**
  - ✓ **Classification Computer Peripherals(Input Devices, Output Devices, Both Input-Output Devices, Device Controller)**
  - ✓ **Types of storage and memory devices(CD, DVD, HDD)**
  - ✓ **Computer specifications(Processor, Storage and Memory, Display, Keyboard)**
- **Describe Operating System**
  - ✓ **Key concepts(Operating system, Application software)**
  - ✓ **Categorizations of Operating systems(Command Line Interface, Graphic user interface, Desktop Operating system, Network operating system, Mobile OS)**
  - ✓ **Versions of an operating systems(Batch, Features, Updates, Service parks)**
- **Description of application software according to their intent use**

  - ✓ **Key concepts(Application software)**

	✓ Types of application software(word processing, Spreadsheets, Desktop publishing, Database, Communication, Internet browsers, Computer Aided Design)
Resources required for the learning outcome	
Equipment	Black/whiteboard, Computer, projector, Reference books
Materials	Piece of chalks/ markers
Tools	
Facilitation techniques	Individual and group work, Trainer guided, Group discussion
Formative assessment methods	Written assessment, Performance assessment

Learning outcome 2: Install software System	Learning hours: 10

Indicative content

- **Install the operating system**
    - ✓ **Identification of software and hardware compatibility(Disk space, Memory capacity, Processor capacity, System type)**
    - ✓ **Identification of Operating system types(Windows OS, Open source OS[Linux], Mac OS, Network OD)**
    - ✓ **Identification of media storage(DVD/CD, Floppy disk, Flash disk, External HDD, Network)**
    - ✓ **Operating system installation process(Media selection, Boot selection, Start up, Follow instructions, Customization, Finalize the installation)**
    - ✓ **Testing the Operating system(Running the installed OS, Testing the performance, Checking features)**
- **Manipulate the Operating system**
    - ✓ **Safe Mode**
    - ✓ **Safe mode with network support**
    - ✓ **Safe mode with command prompt**
    - ✓ **Last Known good configuration**
- **Describe Virtualization Technologies**
    - ✓ **Describe Server and Client Virtualization(Describe Server Virtualization, Describe Client Virtualization, Describe Desktop Virualization)**
    - ✓ **Describe Network and Storage Virtualization(Describe Host-based storage virtualization, Describe Network-based storage virtualization, Describe Virtual Hardware and Software Resources)**

✓ **Describe Virtualization software[VMWare](Describe VMWare Infrastructure, Describe Virtual Center Server, Describe vSphere Client and vSphere Web Access, Describe Virtual Machine)**	

Resources required for the indicative content	
Equipment	Black/whiteboard, Computer, projector, Reference books
Materials	Piece of chalks/ markers
Tools	
Facilitation techniques	Individual and group work, Trainer guided, Group discussion
Formative assessment methods	Written assessment, Performance assessment

Learning outcome 3: use Application Software and Internet	Learning hours: 20

Indicative content	

- **Use Text Processing and Tabular Software**
  - ✓ **Use Features of MS Word and Open Office Word(Create a text document, Use Text Formatting Features, Use Tables&Listing&Forms and Borders, use Images and drawing Features)**
  - ✓ **Use Tabular Data Processing Software(Create Tabular Data and Use formula based formatting, Use Statistical Functions on Tabular Data, Use Data Analysis and Visualization[Pivot Tables, Charts and Graphs], Create Hyperlinks for different worksheets, Manipulate Ms Access Database)**
- **Use Data Presentation Software**
  - ✓ **Use PowerPoint Basics(Create PowerPoint Document, Add Slides[Text and Images], Work with Tables and Charts)**
  - ✓ **Format Text and Layout(Format Content, Use Slide Design, Use Slide Transition and Slide Animation)**
  - ✓ **Use Advanced Features of PowerPoint(Use Slide Master, Use Slide Sorter, Add Multimedia Data)**
- **Use Internet**
  - ✓ **Use Web browser and Search Engine(Use the features and Settings of Web browser, Use Web browser Add-ons, Use the Search Engines)**
  - ✓ **Use Internet Applications(Use Internet Collaboration Tools, Use Internet GPS and FIle Sharing Tools, use Social Networking Applications)**

	✓ Use Internet Communication Tools(Use Instant Messaging Tools, Use Email Communication Tools, Use VoIP Tools)

Resources required for the indicative content	
Equipment	Computer, projector, black/whiteboard, Reference books, Hand-out notes, Internet connection
Materials	Markers, Chalks and Didactic materials
Tools	Scientific calculator
Facilitation techniques	Individual and group work, Practical exercise, Trainer guided
Formative assessment methods	Written assessment, Performance assessment

Reference books:

[1] Computer Basics Student Edition Complete, Microsoft, 2003.

[2] Computer Concepts BASICS, 4th Edition, Doroles J Wells, 2008.

[3] Computer Science I, Dr. Chris Bourke cbourke, 2018.

[4] Basic Computer Course, Mukesh Sharma, 2014.

[5] Learn Basic Computer Fundamentals, C.M. Vining, 2009.

[6] Computer Basics, School of Computer Science, 2006.

[7] Computer Hardware Basics, Clyde Cox, 2013