TEHAMA
Academy

Basic Computer Course

Syllabus
Version 1.0

1 Preamble

This course is designed to deliver basic level skills of computer use. A successful completion gives a user the ability to operate a computer for basic purposes. It gives the foundation of computer use and aims at creating independent computer users to simplify their daily business operations. It is for introducing an individual to critical and useful computer knowledge ranging from basic computer navigation, use of application software's, to internet (web) and emails.

2 Time Span

It is the course with few hours of theory and mostly focused on practical and tutorials. As per our practical learning approach, this course is delivered in an at least one of practical session everyday throughout its signed-up period. It is an onsite course with office hours sessions with the assigned trainer.

3 Outline

- Computer Basics (Knowing the computer)
- Interfacing with Computer
- Application Software
    - o Understanding Word Processing (MS Word)
    - o Understanding Spreadsheet (MS Excel)
    - o Making Presentations (MS PowerPoint)
- Internet
- Communication and Collaboration
- Life with Technology

1 Computer Basics (Knowing the computer)

In this module, the candidate is required to understand some of the main concepts of computer and Information Technology. Mainly but not limited to;

1. **What is a computer?**
   1.1. Computer in everyday life
   1.2. Types of computers
       1.2.1. Desktop computers
       1.2.2. Portable computers (laptops etc.)
       1.2.3. Other computers
           1.2.3.1. Special purpose computers; gaming machines, palmtops etc.
           1.2.3.2. Networked computers; shared resources, printers, servers.
   1.3. Basic application of a computer
2. **Components of a computers system**
   2.1. Central Processing Unit (CPU)
   2.2. Input Output Devices (I/O)
       2.2.1. Difference between input, output and input-output devices
       2.2.2. Understanding input devices; Mouse, Keyboard, Scanner, Digital camera, Microphone etc.
       2.2.3. Understanding main output devices; Screen/Monitor, Printer, Speakers etc.
   2.3. Memory/storage units
       2.3.1. Memory
           2.3.1.1. Understanding the role and function of RAM (Random access memory)
           2.3.1.2. Introduction to understanding of different units of memory measure; KB, MB, GB, TB etc.
       2.3.2. Storage
           2.3.2.1. Understanding storage options such as Re-writable and read-only removable diskettes, CD-R, CD-R/W, DVD, Flash/USB memory sticks
   2.4. Peripheral devices
3. **Concept of Hardware and Software**
   3.1. Hardware concepts
       3.1.1. Understanding the term hardware
       3.1.2. Simple example of hardware
       3.1.3. Understanding basic computer hardware
           3.1.3.1. Main internal parts; Motherboard, processor, hard disk, etc.
           3.1.3.2. Memory, RAM.
           3.1.3.3. Storage, flash/USB, diskettes etc.
           3.1.3.4. Input/outputs
           3.1.3.5. Peripherals
   3.2. Software concepts
       3.2.1. Understanding the term software
       3.2.2. Simple example of software
       3.2.3. System software
           3.2.3.1. Operating system and its role
           3.2.3.2. Other system software; device drivers, BIOS, boot program
       3.2.4. Application software (end-user programs)
           3.2.4.1. Concept of application software
           3.2.4.2. Basic examples; word processors, spreadsheet, etc.
           3.2.4.3. Gaming as application software

4. Introductory concept of computing, data and information
5. Application of ICT

2 Interfacing with Computer

In this module, the candidate is required to demonstrate the ability to use the basic functions of a computer. The candidate must be familiar with navigation of GUI based operating system and the functions that can be accomplished by keyboard and mouse. Additionally, he/she must recognize the common parts of the windows such as Taskbar. The candidate must be able to open and navigate into folders and sub-folders as well as shutting down the computer.

The candidate must in a position to create and delete file and folders and restore from recycle bin. Moreover, he/she must understand the concept of users, userid/username, password and user accounts. This course comprises and not limited to;

1. **Start the Computer**
   1.1. Power on/off with different computer cases (laptop, desktop etc.)
   1.2. Understand user, userid, password and login to default account
   1.3. Resuming from hibernation and standby mode.
2. **Restarting the Computer**
   2.1. Use different ways to restart the computer
   2.2. When should and when can we restart the computer?
3. **Use of the Mouse**
   3.1. Concept of mouse and trackpad
   3.2. Different mouse functions; selection (left/right clicks), activation (double click), drag-and drop etc.
   3.3. Combine mouse and other keys (control/shift)
   3.4. Recognize mouse devices, different mouse generations.
4. **Use of the Keyboard**
   4.1. Keyboard operations
       4.1.1. Input keys; characters, numbers, and symbols. Numeric keypad
       4.1.2. Control keys; move, delete, function keys.
       4.1.3. Introductory switch between keyboard languages
   4.2. Create text document
       4.2.1. Open a simple word processor (Notepad or WordPad)
       4.2.2. Type simple text
   4.3. Introduction to basic keyboard shortcuts
5. **Desktop**
   5.1. Desktop elements
       5.1.1. Meaning and usage of desktop
       5.1.2. Recognize and use Taskbar, Desktop and start button.
       5.1.3. Recognize and use standard desktop icons; My computer, recycle bin, My Document. Open and navigate related windows
       5.1.4. Recognize standard icons in the Taskbar; volume etc.
   5.2. Desktop Icons
       5.2.1. Select icon with a single click
       5.2.2. Open icons with double click
       5.2.3. Move icons around the desktop (drag-and-drop)
       5.2.4. Rearrange icons on the desktop
       5.2.5. Select multiple icons

6. Windows
    6.1. Understand and use of the main parts of a window
    6.2. Recognize the active window and switch between windows
    6.3. Recognize Title bar, Toolbar, Scrollbars and when they appear
    6.4. Minimize, maximize, restore, and close using related buttons
    6.5. Move window around and change window size

7. Folders and files
    7.1. Working with folders and files
        7.1.1. Understand concept of folder and files and their difference
        7.1.2. Open a window folder using its icon
        7.1.3. Create and name a folder in various locations; My Documents, Desktop
        7.1.4. Navigate between folders and sub-folders, back/forward clicks.
        7.1.5. Switch between different views of files and folders in the folder window
        7.1.6. Open files using their icons
        7.1.7. Delete file/folder from My Documents/Desktop
    7.2. The Recycle Bin
        7.2.1. Restore a file from a Recycle Bin
        7.2.2. Empty the Recycle Bin

8. Operating System Simple Setting
    8.1. Changing system date and time
    8.2. Changing display properties
    8.3. Operate different customizations

9. Finish Work with the Computer
    9.1. Use a safe procedure for shutting down a computer. Save and close files and close applications.
    9.2. Shutting down from a start menu.
    9.3. Introduce other ways of logging off/shutting down.

3 Application Software

This module introduces the candidate to key business application software by Microsoft; Microsoft Word, Microsoft PowerPoint and Microsoft Excel. The candidate is required to demonstrate the ability to use word processing application (MS Word) to create basic documents and perform different text manipulations. With growing business numerical-based operations, the candidate is also introduced to basic use of spreadsheet (MS Excel). Moreover, he/she must have the ability to make presentations using MS PowerPoint by being introduced to basic skills with power point operations.

1. Word Processing
    1.1. Getting started with Word
        1.1.1. Creating a new blank document
        1.1.2. Entering text and saving document
        1.1.3. Open and manipulate word documents
        1.1.4. Manage workspace, basic settings.
        1.1.5. Customize your environment; display ruler, zooming in and out.
        1.1.6. Accessing help features

1.2. Text Creation, Editing and Manipulation
    1.2.1. Making text changes
        1.2.1.1. Selecting text
        1.2.1.2. Deleting text
        1.2.1.3. Drag and drop
        1.2.1.4. Cut, copy and paste
        1.2.1.5. Paste options
        1.2.1.6. Undo and redo
    1.2.2. Find and replace text
        1.2.2.1. Using find and replace
        1.2.2.2. Using Navigation pane
    1.2.3. Correcting spelling and grammatical errors
        1.2.3.1. Spell check
        1.2.3.2. Auto correction
1.3. Text Formatting
    1.3.1. Quick text formatting
        1.3.1.1. Paragraph style
        1.3.1.2. Character style
    1.3.2. Character Manipulation
        1.3.2.1. Changing font, font size and font color
        1.3.2.2. Case consideration
        1.3.2.3. Bold, Italic and Underline
        1.3.2.4. Using the Mini Toolbar
        1.3.2.5. Format Painter
        1.3.2.6. Font dialog box
        1.3.2.7. Highlight text
        1.3.2.8. Clear Formatting
    1.3.3. Paragraph Manipulation
        1.3.3.1. Indenting
        1.3.3.2. First Line and hanging indents
        1.3.3.3. Paragraph alignment
        1.3.3.4. Setting up Tabs
        1.3.3.5. Adjusting line spacing
        1.3.3.6. Paragraph spacing
        1.3.3.7. Text justification and paragraph column option
        1.3.3.8. Borders and Shading
    1.3.4. Creating and modifying lists
        1.3.4.1. Bullets and Numbering
        1.3.4.2. Customizing bullets and numbering
        1.3.4.3. Sorting lists
1.4. Working with Tables
    1.4.1. Inserting a table
    1.4.2. Inserting and deleting columns and rows
    1.4.3. Resizing columns/Text alignment in cells
    1.4.4. Merge cells
    1.4.5. Cell width and cell height
    1.4.6. Table alignment
    1.4.7. Converting text to table
    1.4.8. Border and shading

1.5. Inserting elements
    1.5.1.   Inserting and modifying pictures
    1.5.2.   Resize and crop a picture
    1.5.3.   Picture corrections and picture styles
    1.5.4.   Artistic effects
    1.5.5.   Drawing using shape insert
    1.5.6.   Symbols and special characters
    1.5.7.   Use of Word Art
    1.5.8.   Text wrapping
1.6. Controlling page appearance
    1.6.1.   Apply a Page Border and Color
    1.6.2.   Add Headers and Footers
    1.6.3.   Control Page Layout
        1.6.3.1.   Page size and orientation
        1.6.3.2.   Working with margins
    1.6.4.   Add a Watermark
    1.6.5.   Adding page numbers
    1.6.6.   Changing page background
1.7. Preparing to publish a document
    1.7.1.   Check spelling, grammar and readability
    1.7.2.   Save a document to other formats

2. Using Spread Sheet

2.1. Introduction to excel
    2.1.1.   Opening of spreadsheet
    2.1.2.   Interface
    2.1.3.   Addressing of cells
    2.1.4.   Workbook and Worksheets
    2.1.5.   Understanding Workbook file formats
    2.1.6.   Creating new Workbooks
    2.1.7.   Saving Workbooks
2.2. Entering, Editing and Formatting Data
    2.2.1.   Data Entering
        2.2.1.1.   Entering text and numbers
        2.2.1.2.   Auto Fit
        2.2.1.3.   Auto Completion
        2.2.1.4.   Cells selection
            2.2.1.4.1.   All cells and used cells
            2.2.1.4.2.   Rows and Columns
            2.2.1.4.3.   Mouse click and drag
            2.2.1.4.4.   Mouse click and shift click
            2.2.1.4.5.   Shift + Arrow
            2.2.1.4.6.   Ctrl + Shift + Arrow
    2.2.2.   Data formatting
        2.2.2.1.   Bold, italic and underline
        2.2.2.2.   Border
        2.2.2.3.   Fill, font and alignment
        2.2.2.4.   Cell styles and formats
        2.2.2.5.   Number formatting

        2.2.2.5.1.   General and Text
        2.2.2.5.2.   Number and fraction
        2.2.2.5.3.   Date and time
        2.2.2.5.4.   Percentage
        2.2.2.5.5.   Currency

    2.2.3. Data Editing
        2.2.3.1.   Editing cell content
        2.2.3.2.   Copy, cut and paste
        2.2.3.3.   Auto fill cell
        2.2.3.4.   Sort and filter
        2.2.3.5.   Find and replace

2.3. Managing Work Sheets
    2.3.1. Introduction to work sheets
    2.3.2. Naming and moving worksheets
    2.3.3. Copying work sheets
    2.3.4. Adding, deleting and hiding work sheet

2.4. Modifying rows and columns
    2.4.1. Inserting and deleting columns and rows
    2.4.2. Inserting and deleting cells
    2.4.3. Inserting multiple columns and cells
    2.4.4. Modifying cell width and height
    2.4.5. Hiding and unhiding rows and columns

2.5. Calculations
    2.5.1. Introduction to formulas
    2.5.2. Introduction to functions
        2.5.2.1.   Types of functions
        2.5.2.2.   Entering functions
        2.5.2.3.   Introduction to basic functions; SUM, MIN, MAX, and AVERAGE.
        2.5.2.4.   Showing the use of other types of formulas
            2.5.2.4.1.   Logical
            2.5.2.4.2.   Lookup and references
            2.5.2.4.3.   Date and time
            2.5.2.4.4.   Text
            2.5.2.4.5.   Financial

2.6. Introduction to Conditional formatting
    2.6.1. Highlight cell rules
    2.6.2. Top/Bottom rules

2.7. Printing
    2.7.1. Page Orientation
    2.7.2. Print areas
    2.7.3. Margins
    2.7.4. Headers and footers

2.8. Saving workbook
    2.8.1. Save as previous version
    2.8.2. Save as new version
    2.8.3. Save as PDF
    2.8.4. Save as web page

3. Power Point (Making small presentations)

3.1. Introduction to PowerPoint (basics of power point)

    3.1.1. Starting/opening a power point presentation

    3.1.2. Create a new blank presentation

    3.1.3. Create presentation using a template

    3.1.4. View and navigate presentation

    3.1.5. Entering and editing text

    3.1.6. Inserting and deleting slides in a presentation

    3.1.7. Saving power point presentation

3.2. Working with text operations

    3.2.1. Understanding and applying font formatting

    3.2.2. Applying paragraph

    3.2.3. Changing bulleting and numbering styles

    3.2.4. Understanding and using text boxes

    3.2.5. Applying word art to text

    3.2.6. Converting text to smart text

3.3. Understanding insert operations and slide layouts

    3.3.1. Understanding slide layout

    3.3.2. New slide insert

    3.3.3. Inserting title slide, header and footer

    3.3.4. Inserting table

    3.3.5. Inserting picture with caption slide

    3.3.6. Inserting shapes, chart, icons

    3.3.7. Working with text boxes

    3.3.8. Working with dates and time, Slide Number, Equation and symbols

3.4. Working with Shapes

    3.4.1. Inserting/drawing shapes

    3.4.2. Resizing and editing shapes

    3.4.3. Positioning and arranging shapes

    3.4.4. Merging shapes

    3.4.5. Formatting shapes

        3.4.5.1. Theme styles

        3.4.5.2. Shape fills

        3.4.5.3. Shape outlines

        3.4.5.4. Shape effects

    3.4.6. Copying shapes

    3.4.7. Inserting and formatting text

        3.4.7.1. WordArt

        3.4.7.2. Text fill and outline

        3.4.7.3. Effects

    3.4.8. Connecting shapes

    3.4.9. Grouping shapes

    3.4.10. Rotating shapes

3.5. Preparing for presentation

    3.5.1. Slide numbers and sections

    3.5.2. Adding notes to slides

    3.5.3. Design, background and slide size

    3.5.4. Transitions

    3.5.5. Animations

    3.5.6. Slide show

3.6. Print your presentation
3.7. Deliver your presentation

4 Internet

In this module, the candidate is required to understand the basic concept of internet and work with web browser applications. The candidate must demonstrate his/her understanding on some basic concept and terms of internet. Additionally, his/she, must be in a position to browse web pages using the appropriate address and hyperlinks.

The candidate must also know the requirement for a home computer to access the internet be able to use a web browser application for simple searches, be able to add favorite pages to bookmarks and being able to save and print web pages.

1. Basics of Computer Network
    1.1. Concept of computer network
    1.2. Local area network (LAN)
    1.3. Wide area network (WAN)
    1.4. Examples of networks
2. Internet
    2.1. Internet basics
        2.1.1. Understanding what the internet is
        2.1.2. Connecting to internet
        2.1.3. Understanding World Wide Web
        2.1.4. Distinguish between Internet and World Wide Web
        2.1.5. Basic services of internet (application of internet); www, e-mail, file sharing (uploading files to internet), information sharing (messaging)
        2.1.6. Understanding internet provision (concept of ISP (Internet Service Provider))
        2.1.7. Basic equipment for internet connection; modem, mobile phone
        2.1.8. Understanding websites
        2.1.9. Information search on the web
    2.2. Basics of Web Pages
        2.2.1. Concept of web pages
            2.2.1.1.   What is a web page?
            2.2.1.2.   Where are web pages stored?
        2.2.2. Concept of addresses of web sites (URL)
            2.2.2.1.   Structure of a web address
            2.2.2.2.   Elements of the web addresses
        2.2.3. Concepts of domains
            2.2.3.1.   Understand what domains are
            2.2.3.2.   Identifying different domains; .com, .edu, .ac, .org etc.
        2.2.4. Understanding various contents of web pages; text, pictures, hyperlinks, etc.
    2.3. Web Browsing Software
        2.3.1. Understanding what a web browser is and what is used for
        2.3.2. Open and close web browsing software
        2.3.3. Understanding concept of homepage
    2.4. Web Navigation (Navigating web pages)
        2.4.1. Navigating between web pages
            2.4.1.1.   Navigate backwards and forwards between previously visited pages

        2.4.1.2.   Navigating to home pages
    2.4.2. Navigate to specific web pages given its address
    2.4.3. Select/use hyperlink
    2.4.4. Copy text from web pages
    2.4.5. Downloading and saving document; images, other files etc.
  2.5. Search Engines
    2.5.1. Concept and capability of search engines
    2.5.2. Open search engines web page
    2.5.3. Perform a simple search of a specific term
    2.5.4. Navigate web pages after a search
    2.5.5. Search for a picture using search engines
    2.5.6. Save documents after search engines search
  2.6. Organizing Web Pages
    2.6.1. Concept of bookmarks
    2.6.2. Adding web pages in bookmark
    2.6.3. Navigating to web page from bookmarks
    2.6.4. Deleting web pages from bookmarks
  2.7. Saving web pages
  2.8. Printing web pages

5   Email and collaboration

In this module, the candidate is required to understand the concept and familiarize with basic use of e-mail applications. The candidate is required to know the basic concepts associated with the use of e-mail and be in a position to demonstrate his/her ability to use an e-mail application for creating, sending, forwarding, receiving, replying to and printing messages.

The candidate must also be aware of the advantages of the e-mail application compared to the conventional mail, about what an e-mail message can contain, as well as about its capabilities and the limitations when using e-mail provided by dedicated web sites. Additionally, the candidate must be in a position to attach files to messages, appropriately format the messages to be sent, use stationery and manage attached files.

Moreover, the candidate will be introduced to basic online collaboration and file storage applications such as Google Drive.

1. E-mail
   1.1. Basic concepts
      1.1.1. What is e-mail (Electronic Mail)
      1.1.2. Understanding and explaining and explaining the advantage of email in relation to conventional mail and telephone
      1.1.3. What is e-mail address
         1.1.3.1.   Getting emails address (Using Gmail in the course)
      1.1.4. Basics of e-mails
         1.1.4.1.   Incoming mail (inbox)
         1.1.4.2.   Outgoing mail (outbox/sent)
         1.1.4.3.   Send and receive emails
         1.1.4.4.   Concept of Sender. Receiver, Copy (CC, BCC)
         1.1.4.5.   Role of boxes; Sent, Inbox, Drafts etc.
   1.2. Email applications
      1.2.1. Open and email application

1.2.2. Create email account (If not done above)

1.2.3. User login to a web-based email application; Yahoo/Hotmail/Gmail.

1.2.4. Capabilities of email applications

1.2.5. Close email applications

1.3. Email Messaging

    1.3.1. Basic concepts of an email message

        1.3.1.1. Characteristics of a message; Date and time of sending and receipt

        1.3.1.2. Potential content of a message; main message, attachments etc.

    1.3.2. Basic operations with message

        1.3.2.1. Select and switch between message folders

        1.3.2.2. Preview and open message

        1.3.2.3. Read and unread messages and their marking

        1.3.2.4. Close a message

    1.3.3. Prepare an email message

        1.3.3.1. Create a new message

        1.3.3.2. Insert (and edit) text in message body

        1.3.3.3. Specify one or more recipients of the message.

        1.3.3.4. Specify recipients for carbon copy (cc)

        1.3.3.5. Specify the Subject of a message.

        1.3.3.6. Specify the Subject of a message.

    1.3.4. Message formatting/editing

        1.3.4.1. Text format and operations (font size, styles etc.)

        1.3.4.2. Labeling and background color of a message

    1.3.5. Manage email message

        1.3.5.1. Send email message

        1.3.5.2. Receive email message

        1.3.5.3. Reply to a sender

        1.3.5.4. Reply to all recipients of the message

        1.3.5.5. Forward and message to one or more recipients of the message

        1.3.5.6. Delete a message

1.4. Attachments

    1.4.1. Understanding the concept of "Attachments"

    1.4.2. Insert a file as attachment

    1.4.3. Open and save an attachment file

    1.4.4. Delete an attachment file

1.5. Message Output

    1.5.1. Print an e-mail message

    1.5.2. Save e-mail message

6 Life with Technology

In the module, the candidate is expected to get the feel of how ICT has simplified life by giving scenarios of different fields. The candidate will be involved and expected to come up with ideas and suggestions of where and how technology is applicable and how. This is a short project for candidates to present and it's expected to be in groups of two students.

Students in teams will brainstorm how technology is applied in these fields;

1. Communication
    1.1. Video conferencing
        1.1.1. Blue jeans
        1.1.2. WhatsApp
        1.1.3. Skype
        1.1.4. Zoom
    1.2. Emails
        1.2.1. Gmail
        1.2.2. Yahoo
        1.2.3. Outlook
2. Manufacturing
    2.1. Industry automations using robots in mega factories
        2.1.1. Future in artificial Intelligence (Machine learning)
3. Business
    3.1. Product tracking in factories
    3.2. Online stores/shops
        3.2.1. Amazon
        3.2.2. Alibaba
        3.2.3. eBay
    3.3. Online payments
        3.3.1. PayPal
        3.3.2. Use of debt card (VISA, Mastercard etc.)
4. Education
    4.1. Projector teaching
    4.2. Online learning web applications; Coursera, Duolingo, etc.
    4.3. Collaboration, Google drive
5. Examples of mobile apps