📘 IT Essentials — 5 Weeks Curriculum

Week 1 — Computer Hardware

Class 1: Introduction to Computer Hardware

- Introduction to computers
- Types of computers (desktop, laptop, server)
- System unit components: CPU, RAM, Motherboard, Power Supply
- Input & Output devices (keyboard, mouse, monitor, printer, scanner)

Practical

- Identify components inside a computer system unit
- Label parts of a motherboard

Deliverable

- Diagram/report of PC hardware components

Class 2: Storage Devices & PC Assembly

- Primary vs Secondary storage (RAM vs HDD/SSD)
- Optical disks, USB, Memory cards
- Peripheral ports: USB, HDMI, VGA, Network ports
- Overview of computer assembly and connections

Practical

- Install RAM and a storage device
- Assemble a PC and boot into BIOS

Deliverable

- Step-by-step PC assembly notes

Week 2 — Operating Systems

Class 3: Windows Operating System

- Functions of an OS
- Overview of Windows versions (Win 10, 11)
- Disk partitioning, formatting, and installation process
- User accounts and control panel basics

Practical

- Install Windows OS on a test machine/VM
- Create and manage user accounts

Deliverable

- Screenshot of Windows installation & account setup

Class 4: Linux Basics

- Introduction to Linux distributions (Ubuntu, Fedora, etc.)
- File system structure (/home, /etc, /var)
- Basic commands: `ls`, `cd`, `mkdir`, `rm`, `nano`
- Difference between GUI and CLI

Practical

- Boot into Linux (VM or dual-boot)
- Run and practice 5–7 basic commands

Deliverable

- Short report comparing Windows vs Linux experience

Week 3 — Networking Essentials

Class 5: Networking Fundamentals

- What is networking?
- Types: LAN, WAN, WLAN
- Networking devices: Router, Switch, Access Point
- IP addressing basics (IPv4)

Practical

- Connect 2 PCs with a crossover cable
- Assign static IP addresses

Deliverable

- Screenshot of IP configuration

Class 6: Network Setup & Internet Basics

- DNS, DHCP, and how they work
- Difference between public and private IP
- Internet browsing and safety tips

Practical

- Connect 2–3 PCs using a switch/router
- Share files over LAN
- Test connectivity with `ping`

Deliverable

- Simple home/office network diagram

Week 4 — Cybersecurity & Computer Maintenance

Class 7: Introduction to Cybersecurity

- Common security threats (malware, ransomware, phishing)
- Antivirus and firewall basics
- Social engineering and password safety

Practical

- Install and update antivirus software
- Run a malware scan (lab setup)

Deliverable

- Malware scan report (simulated data)

Class 8: Computer Maintenance

- Preventive maintenance (cleaning, updates, backups)
- Disk cleanup and defragmentation
- Data protection and recovery basics

Practical

- Perform disk cleanup and check system health
- Configure Windows backup

Deliverable

- Maintenance checklist report

Week 5 — Microsoft Office Suite

Class 9: MS Word & Excel

- MS Word: Formatting, tables, images, page layout
- MS Excel: Data entry, formulas, SUM, AVERAGE, charts

Practical

- Word: Create a formatted CV
- Excel: Create a monthly budget with formulas and a chart

Deliverable

- CV (Word file) + Budget Sheet (Excel file)

Class 10: MS PowerPoint & Outlook

- MS PowerPoint: Creating slides, transitions, animations
- MS Outlook: Sending/receiving emails, calendar management

Practical

- PowerPoint: Prepare a 5-slide presentation
- Outlook: Draft and send a professional email

Deliverable

- Slide presentation + sample email screenshot

📌 **Final Assessment (End of Week 5)**

- **Practical Test:** Assemble a PC, configure an OS, set up a small LAN, and submit an MS Office project.
- **Theory Quiz:** Hardware, OS, Networking, Cybersecurity, Microsoft Office.