

P.D.E.A.'s

Waghire College of Arts, Commerce and Science, Saswad.

Department of Physics (2023-2024)

Add-on Certificate Course

Title : COMPUTER FUNDAMENTALS

Course Duration : 15 weeks (2 Credits)

Total hours : 30 Periods (Theory Periods -10, Practical periods- 20)

Course frequency : Once in an academic year .

Eligibility : XIIth (Science) Pass .(Any Student admitted for F.Y./ S.Y. B.Sc.)

Intake : 30 students.

Objective in terms of learning outcome :

After completion of training , participants would be able to understand basic concept of computer system, computing system, classification of computers, various generation of computers, various functions of CPU, concepts of virtual memory, Input/output devices, auxiliary storage devices, computer networks, types of networks, evaluation, devices, topologies, nodes in network communication, web and internet, domain system.

Tools & Equipment: Hardware required

PCs 05 – Server and clients with latest configuration, Networking tool i.e. Hub , Switch , Cables , Modem , Router etc. Internet Connection.

Software: - Microsoft Windows Server, Windows OS, Linux Server Antivirus and Network trouble shooting utilities.

COURSE CONTENT

1. COMPUTER CONCEPTS

5 periods

- 1.1 COMPUTER
- 1.2 USES OF COMPUTER
- 1.3 ELEMENTS OF THE COMPUTING PROCESS
 - 1.3.1 Hardware
 - 1.3.2 Software
- 1.4 CHARACTERISTICS OF COMPUTERS
- 1.5 CLASSIFICATION OF COMPUTERS
- 1.6 HISTORICAL PERSPECTIVE
- 1.7 CENTRAL PROCESSING UNIT (CPU)
- 1.8 FUNCTIONS OF CPU
- 1.9 VIRTUAL MEMORY

2. INPUT/OUTPUT AND AUXILIARY STORAGE DEVICES

5 periods

- 2.1 INPUT DEVICES
- 2.2 OUTPUT DEVICES
- 2.3 AUXILIARY STORAGE DEVICES
- 2.4 MAGNETIC TAPE
- 2.5 WINCHESTER DISK
 - 2.5.1 Hard Disk
- 2.6 FLOPPY DISK
- 2.7 ZIP DISK
- 2.8 JAZ DISK
- 2.9 SUPERDISK
- 2.10 OPTICAL DISK
 - 2.10.1 CD-ROM
 - 2.10.2 CD-R Drive
 - 2.10.3 CD-RW Disks
- 2.11 MAGNETO-OPTICAL (MO) DRIVES
- 2.12 DVD
- 2.13 USB FLASH DRIVE

3. LABORATORY SESSION

Sr. No.	Experiment / Topic	Periods
1	Various Components of computer CPU-Parts of CPU, Arithmetic logic unit, control unit, Key board , mouse, monitor-CRT, Flat panel. Printers -Impact and Non impact printers- Character, dot matrix, drum chain, Laser, Inkjet printers. Storage devises - USB, Flash drive, memory cards, CD,DVD,HDD	3
2	Windows Operating System Starting the Windows Starting a program, running a program Running multiple programs and switching between windows Customizing the Task bar Recycle bin, restoring the deleted files	4
3	MS Word Working with Documents Formatting Documents Setting Page style Creating Tables Drawing Tools Printing Documents	3
4	MS Excel Entering & Deleting Data Setting Formula Formatting Spreadsheets Working with sheets Creating Charts Printing. Using Tools	4
5	MS Power Point Creating a presentation Formatting a Presentation Adding Effects to the Presentation Printing Handouts	3
6	Web Browser And E-mail Popular Browser- Fire fox, Internet explorer, Google, others E-mail- How to create a e-mail-creating account, use of email	3
	Total Periods	20