

Objectives:

- To familiarize the students with basic computer concepts with Operating system and office automation tools.
 - To provide the necessary skills to understand and efficiently use various commonly used software packages.
 - To familiarize students with technologies like networking and internet and to build skills in applying these technologies to various business processes and emerging areas in information technologies.
 - To teach the concepts of Web Based Application Development and able to create web pages using HTML
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1 Fundamentals of Computers and operating system

- Computer: Definition, Characteristics, Advantages-Disadvantages and types. Function and components of a computer.
- Various Input Devices and its functionality. Memory, Auxiliary Storage Devices. Output and System Devices
- System Software, Application Software. Operating system: works, classification, User interface. Types of OS like windows, Linux : category and its advantage
- Multimedia Devices. Virus Detection and Elimination

2 Office automation tools

- Office automation software & tools and its advantage. Open source office automation software
- Word processor software (writer) : importance, Menus, Working & editing With Documents using various functionalities, Customize, Formatting, Paragraphs, Styles, table, Graphics, Proofing, Creating Web Pages, Lists, References and Citations, Mail merge and etc...
- Spreadsheet software (Calc): Importance and application, Working with a Workbook, Manipulating Data, Modifying a Worksheet, Performing Calculations, Sort and Filter, Graphics, Charts, Formatting a Worksheet, Developing a Workbook,
- Presentation software (Impress): Physical Components of a Presentation, how make effective Presentations. Creating a Presentation, Working with Content, Formatting Text, Adding Content, Graphics, Tables, Charts, Slide Effects, design template; Slide view; custom animation etc.

3 Introduction to Networking

- Communication: term, system and types. Transmission and Modes, Communication Media and signal. Multiplexer. Encoding.
- Network: Concept, Advantages, Types, Example of Network. Peer-to-Peer Networks, Server-Based Network. Network Topology, Network interface card.

- Function of Protocols, IP address and TCP/IP protocol. HTTP, FTP, SMTP, POP, IMAP, SNMP, TCP, UDP, IP, ICMP, Telnet.
Function of Packets in Network communications. The Role of Drivers.
OSI Reference Model, TCP/IP Reference Model, Comparison of OSI and TCP/IP
- Connectivity Devices: Modem, Hubs, Repeaters, Bridges, Routers, Gateways. Wireless network concept and types
- Network Environment: User, Groups, Computer, sharing, Rights, access, Domain and workgroup. Network Security.

4 **Application of Internet**

- Internet-History and uses. Dial up access, Dedicated / Direct connection, Shell & TCP/IP Account, Domain Name, IP address.
- World Wide Web, www Browsing, URL, Search. E-mail, E-mail Sending & Receiving Tech, Mail protocol.
- Chat, conference, Messenger on Internet. Search Engine utility
- Blog, Concept of social networking site.

5 **Web technology**

- Web technology: Anatomy of Website and Web page organization & navigation
- HTML: Build a simple HTML document, table, frames, links, Form, adding multimedia documents and create a web page.
- Web creation tools
- Simple site and blog creation using online tools

Books:

1. Leon & Leon Introduction to Computers, Vikas publishing House, New Delhi.
2. Comer 4e, Computer networks and Internet, Pearson Education.
3. Comdex computer course
4. Internet for beginners by hemang antani
5. Computer Network by Dr. Satish Patel
6. HTML: A Beginner's Guide by Wendy Willard

Lab:

- Understand of computer devices
- Operating system
- Libre office automation package
- Network demonstration and design case study
- e-mail, blog, website and various google facilities
- internet concepts & web design using HTML