

## Fundamentals of Computer

**Subject Code: CSE-501**

Credit	Hours	Marks		
		I	E	To
3	45	15	35	50

### Objectives

- The syllabus introduces students to basic information and communication technology and proper paradigms that need to be implemented to develop any kind of computer applications. The course will help in developing the basic technical skills by hands on experience.

### Learning Outcomes

- Students will be able to use the computer for basic purposes of preparing personnel/business letters, viewing information on Internet, sending mails, using internet banking services etc.
- Understand basic computer operations and ICT applications.
- Understand Network troubleshooting.
- Undertake data entry services

Unit	Topic	Key Learning
I	<b>Introduction to Computer System:</b>	1.1 What is Computer, Basic Applications of Computer; Block Diagram of Computer System 1.2 Input / Output Devices, Computer Memory, Concepts of Hardware and Software, Data and Information; Applications of IECT. 1.3 Computer Virus: Definition, Types of viruses, Characteristics of viruses, Anti-virus software, 1.4 Introduction to number system
II	<b>Operating System</b>	<ul style="list-style-type: none"> <li>Overview of operating system: Definition, Functions of operating system, Need and its services, Types of operating system, Batch Processing, Spooling, Multiprocessing, Multiprogramming</li> <li>, Time-Sharing, On-Line Processing, Real-Time Processing Basics of window operating system</li> <li>Comparison between DOS and windows, Switching between DOS and windows</li> <li>Comparison between Unix and Windows</li> </ul>
III	<b>Understanding Office Applications</b>	<ul style="list-style-type: none"> <li>Introduction to MS Word, Introduction to MS Excel and its applications, Introduction to MS PowerPoint, Menus, Shortcuts,</li> <li>Document types, Formatting documents</li> <li>spread sheet and presentations, working with Spreadsheets, Different templates, Macros, Mail merge</li> </ul>

IV	<b>Networking</b>	<ul style="list-style-type: none"> <li>• Network Technologies, Introduction to Internet and protocols: TCP/ IP, Network connecting devices, Topologies</li> <li>• HTTP, HTTPS DNS, Hub, Switches</li> <li>• Router, Repeater, Firewalls, Digital Signature.</li> </ul>
V	<b>Introduction to World Wide Web and ERP</b>	<ul style="list-style-type: none"> <li>• WWW and Web Browsers Introduction, Objectives, Concept of internet</li> <li>• Overview of search engines, popular search engines in use, Surfing the web and websites, Hosting your websites, Planning and Developing the websites, Internet service provider.</li> <li>• Defining ERP, Origin and Need for an ERP System, Benefits of an ERP System, ERP Tools and Software, ERP Selection Methods and Criteria, ERP Selection Process, ERP Vendor Selection, ERP Implementation Lifecycle, Pros and cons of ERP implementation, Factors for the Success of an ERP Implementation, Introduction to SAP</li> </ul>

**Suggested Readings:****Text Books**

1. Computers and Beginners by Jain, V.K.;
2. Computer Fundamentals by Anita Goel, Pearson.

**Reference Books**

1. Introduction to Information Technology, Leon Tech World by Leon and Leon
2. Foundations of Computing, BPB Publication by Sinha, Kr. Pradeep and Preeti Sinha;
3. Word Processing and Typing by Sharon Spencer, Heinemann.
4. MS Office by S.S. Srivastava, Firewall Media.
5. Microsoft Office 2010 by Bittu Kumar, V & S Publications
6. Data Communication and Networking by Behrouz.A. Forouzan, McGraw Hill

**Web Links** <http://cec.nic.in/E-Content/Pages/default.aspx>

## Fundamentals of Computer Lab

**Subject Code: CSE-501L**

Credit	Hours	Marks		
1	30	I	E	To
		35	15	50

### List of Experiments

1. Troubleshooting
2. Practical based on to be exposed/shown various components and supposed how to switch on a computer.
3. Handling Boot Setup, Installation of Operating System, Connecting your client to server, User and Workgroup Handling, General Operating system handling and related topics.
4. WordPad, Notepad, Sticky Note, Snipping tool, Paint
5. M.S. Word
6. MS-Excel- Creating charts, Creating tables
7. MS-PowerPoint
8. MS-Outlook
9. Case study on Operating systems (Windows/ Ubuntu/ Android/iOS)
10. Networking
11. Software: Preparatory and open domain