

# 21CS104 BASICS OF COMPUTERS AND INTERNET

Hours Per Week :

| L | T | P | C |
|---|---|---|---|
| 1 | - | 2 | 2 |

Total Hours :

| L  | T | P  |
|----|---|----|
| 15 | - | 30 |



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## COURSE DESCRIPTION AND OBJECTIVES:

This course provides students with a working knowledge of the components associated with computer system and Internet. Students will get exposure to building blocks of computers, Operating Systems, Application software, Networking, Internet, World wide web, Security, Maintenance, Information Systems.

## COURSE OUTCOMES:

Upon completion of the course, the student will be able to achieve the following outcomes:

| COs | Course Outcomes   |
|-----|---|
| 1   | Understand the concepts of Networks and Internet.   |
| 2   | Demonstrate the disassembling and assembling of a personal computer system.                   |
| 3   | Install the operating system and application software required in a personal computer system. |
| 4   | Identify the various security threats to users and data.                                      |
| 5   | Design a Project by using Different Packages.   |

## SKILLS:

- ✓ Knowledge on basic component of Computer system and different types of desktop operating systems.
- ✓ Use the basic text processing software, simple data analysis and data presentation tools. Configure network parameters.
- ✓ Secure the personal computer and information from various external threats.
- ✓ Detection and removal of virus from the system.

**UNIT - I****L - 3**

**COMPUTING SYSTEMS:** Introduction to computer, Importance of computers, Parts of computer system, Memory devices: Primary and Secondary memories, Input and output devices, Number systems, Bits and bytes.

**UNIT - II****L - 3**

**OPERATING SYSTEMS:** Introduction, Types of operating systems, User interfaces, Types of softwares and Programming languages, Language Processor, Compiler and interpreter, Program control flow and algorithm.

**UNIT - III****L - 3**

**COMPUTER NETWORKS:** Networking basics, Transmission medias, Uses of network, Types of networks, Network hardware, Components requirement to establish a LAN: IPAddresses.

**UNIT - IV****L - 3**

**INTERNET AND WWW :** Internet's services, World wide web, DNS, Browser setups, Search Engine, Email and other internet applications.

**UNIT - V****L - 3**

**CYBER SECURITY:** The need of computer security, Basic security concepts: Cryptography, Threats of users, Online spying tools, Protective measures.

## LABORATORY EXPERIMENTS

**LIST OF EXPERIMENTS****TOTAL HOURS : 30**

1. Demonstrate the Personal Computer Peripherals and Draw the block diagram of the CPU along with the configuration of each peripheral and get a report on each peripheral.
2. Hardware Assembling, Disassembling and Troubleshooting.
3. Install operating system like Linux or MS windows on the personal computer. The system should be configured as dual boot with both windows and Linux.
4. Demonstrate Network Interface Card (NIC) configuration and get a report on networking devices.
5. Demonstrate Web Browsers, bookmarks, search toolbars and pop up blockers, Search Engines.
6. Create a document on computer. Features to be covered:
  - a. Formatting Fonts in word, Drop Cap in word, Applying Text effects, Using Character Spacing, Borders and Colors, Inserting Header and Footer.
  - b. Formatting Styles, Inserting Shapes, Table, Bullets and Numbering, Changing Text Direction, Cell alignment, Footnote, Hyperlink, Mathematical equations with Symbols, Spell Check, Track Changes.
  - c. Table of Content, Newspaper columns, Images from files and clipart's, Word Art, Formatting Images, Textboxes, Paragraphs in word.
7. Spreadsheet Orientation: Accessing, overview of toolbars,
  - a. Creating Gridlines, Format Cells, Summation, auto fill, Formatting Text
  - b. Formulae in spreadsheet – Max, Avg, IF etc
  - c. Charts, Renaming and Inserting worksheets, Hyper linking, Count function, Sorting, Conditional formatting.
8. Creating Power Point:
  - a. Work on basic powerpoint utilities and create basic power point presentation.
  - b. PPT Orientation, Slide Layouts, Inserting Text, Formatting Text, Bullets Numbering, Auto Shapes, Lines and Arrows, Hyperlinks, Inserting Images, Tables and Charts.
9. Create the document, Spread Sheet and Presentation by using Libre office package.

**TEXT BOOK :**

1. Peter Norton, "Introduction to Computers", 7<sup>th</sup> edition, Tata-McGrawHill, 2010.

**REFERENCE BOOKS:**

1. IITL Education Solution Limited, "Introduction to Computer Science", 2<sup>nd</sup> edition, Pearson Education, 2011.
2. Eric Maiwald, "Fundamentals of Network Security", 3<sup>rd</sup> edition, Tata-McGrawHill, 2004.