



SOURASHTRA COLLEGE, MADURAI – 625004

(An Autonomous Institution Re-accredited with 'B+' grade by NAAC)

DEPARTMENT OF COMPUTER SCIENCE

(CLOUD COMPUTING AND CYBER SECURITY)

CERTIFICATE COURSE IN COMPUTER AWARENESS

AND WEB TECHNOLOGY – SYLLABUS

(Under CBCS based on OBE) (For those admitted during 2024 – 2025 and after)

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COURSE CODE	COURSE TITLE	CATEGORY	T	P	CREDITS
24CCDC11	COMPUTER AWARENESS	CERTIFICATE COURSE	20 Hrs.	-	-

YEAR	SEMESTER	INTERNAL	EXTERNAL	TOTAL
II	-	-	100	100

NATURE OF COURSE	Employability	Skill Oriented	Entrepreneurship
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

COURSE DESCRIPTION:

The Computer Awareness course is designed to provide students with a comprehensive understanding of fundamental computer concepts. Through hands-on exercises students will gain the necessary knowledge and skills to navigate the digital landscape confidently and effectively.

COURSE OBJECTIVES:

- Understand the basic components and functions of a computer system.
- Demonstrate proficiency in using common computer applications such as word processors, spreadsheets, and presentation software.

COURSE OUTCOMES (COs):

After the completion of the course, the students will be able to

CO	Course Outcomes	Knowledge Level (According to Bloom's Taxonomy)
CO 1	possess a solid understanding of fundamental computer concepts, terminology, and operations.	Upto K3
CO 2	identify, describe, and differentiate between various hardware components of a computer system.	Upto K3
CO 3	be capable of creating, formatting, editing, and managing documents efficiently using word processing software.	Upto K3
CO 4	create and manage spreadsheets effectively, perform basic data analysis, and utilize formulas and functions to manipulate data.	Upto K3
CO 5	create visually appealing presentations with multimedia elements and deliver effective presentations confidently	Upto K3

K1– KNOWLEDGE (REMEMBERING), K2–UNDERSTANDING, K3–APPLY



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COMPUTER AWARENESS

UNIT – I: BASIC COMPUTER CONCEPT

Computer Appreciation - Characteristics of Computers, Input, Output, Storage units, CPU, Computer System. Computer Organization: Central Processing Unit - Processor Speed, Cache, Memory, RAM, ROM, Booting, Memory- Secondary Storage Devices: Floppy and Hard Disks, Optical Disks CD-ROM, DVD, Mass Storage Devices: USB thumb drive. Managing disk Partitions, File System Input Devices - Keyboard, Mouse, joystick, Scanner, web cam, Output Devices- Monitors, Printers – Dot matrix, inkjet, laser, Multimedia- What is Multimedia, Text, Graphics, Animation, Audio, Images, Video; Multimedia Application in Education, Entertainment, Marketing. Names of common multimedia file formats, Computer Software- Relationship between Hardware and Software; System Software, Application Software, Compiler, names of some high-level languages, free domain software.

UNIT – II: OPERATING SYSTEM

What is an operating system and basics of Windows - The User Interface - Using Mouse and Moving Icons on the screen- The My Computer Icon- The Recycle Bin- Status Bar, Start and Menu & Menu-selection-Running an Application -Windows Explorer Viewing of File, Folders and Directories -Creating and Renaming of files and folders -Opening and closing of different Windows. Windows Setting- Control Panels -Wall paper and Screen Savers- Setting the date and Sound-Concept of menu Using Help. Advanced Windows-Using right Button of the Mouse-Creating Short cuts -Basics of Window Setup -Notepad - Window Accessories

UNIT – III: WORD PROCESSING

Word processing concepts: saving, closing, opening an existing document, selecting text, editing text, finding and replacing text, printing documents, Creating and Printing Merged Documents, Character and Paragraph Formatting, Page Design and Layout. Editing and Profiling Tools: Checking and correcting spellings. Handling Graphics, Creating Tables and Charts, Document Templates and Wizards.

UNIT – IV: SPREADSHEET PACKAGE

Spreadsheet Concepts, Creating, Saving and Editing a Workbook, Inserting, Deleting Work Sheets, entering data in a cell / formula Copying and Moving from selected cells, handling operators in Formulae, Functions: Mathematical, Logical, statistical, text, financial, Date and Time functions, Using Function Wizard. Formatting a Worksheet: Formatting Cells – changing data alignment, changing date, number, character or currency format, changing font, adding borders and colors, Printing worksheets, Charts and Graphs – Creating, Previewing, Modifying Charts. Integrating word processor, spread sheets, web pages – Pivot Table, Sub Total – Data Menu Item.



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UNIT – V: PRESENTATION PACKAGE

Creating, Opening and Saving Presentations, Creating the Look of Your Presentation, Working in Different Views, Working with Slides, Adding and Formatting Text, Formatting Paragraphs, Checking Spelling and Correcting Typing Mistakes, Making Notes Pages and Handouts, Drawing and Working with Objects, Adding Clip Art and other pictures, Designing Slide Shows, Running and Controlling a Slide Show, Printing Presentations.

TEXT BOOKS:

1. V. Rajaramam, *Fundamentals of Computers*, 6th edition, PHI Publications, 2014.
2. *Microsoft Office – Complete Reference*, McGraw Hill, 2003.

REFERENCE BOOKS:

1. Courter, G Marquis, *Microsoft Office 2007: Professional Edition*, BPB Publications, 2010.
2. Koers, D, *Microsoft Office XP Fast and Easy*, PHI, 2001.

DIGITAL TOOLS:

1. https://www.tutorialspoint.com/basics_of_computers/basics_of_computers_useful_resources.htm
2. <https://www.geeksforgeeks.org/computer-fundamentals-tutorial/>
3. <https://www.classcentral.com/course/swayam-computer-fundamentals-13950>

Mapping of CO with PSO

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	2	1	2	3
CO2	1	2	3	2	3	2
CO3	2	1	2	2	2	2
CO4	2	2	3	3	2	2
CO5	2	1	2	3	3	3

3. Advanced Application 2. Intermediate Development 1. Introductory Level
COURSE DESIGNER: Dr. K. ANURATHA



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COURSE CODE	COURSE TITLE	CATEGORY	T	P	CREDITS
24CCDC12	WEB TECHNOLOGY	CERTIFICATE COURSE	20 Hrs.	-	-

YEAR	SEMESTER	INTERNAL	EXTERNAL	TOTAL
II	-	-	100	100

NATURE OF COURSE	Employability <input checked="" type="checkbox"/>	Skill Oriented <input checked="" type="checkbox"/>	Entrepreneurship <input checked="" type="checkbox"/>
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COURSE DESCRIPTION:

The Web Technology course is designed to provide students with a comprehensive understanding and practical skills related to web technology. The course covers a range of topics including internet fundamentals, web development principles, and practical applications of web technologies.

COURSE OBJECTIVES:

- Navigate the internet effectively, including understanding web browsers, search engines, and online communication tools.
- Comprehend the principles of web development, including HTML, CSS, and JavaScript.
- Design and create simple web pages using HTML and CSS.

COURSE OUTCOMES (COs):

After the completion of the course, the students will be able to

CO	Course Outcomes	Knowledge Level (According to Bloom's Taxonomy)
CO 1	possess a thorough understanding of network, internet protocols, and addressing schemes.	Upto K3
CO 2	create well-structured and semantically meaningful web documents using HTML, incorporating various elements and attributes.	Upto K3
CO 3	demonstrate proficiency in styling web documents using CSS, including layout design, typography, colors, and responsive design principles.	Upto K3
CO 4	acquire fundamental programming skills in JavaScript	Upto K3
CO 5	develop simple websites using HTML/DHTML, CSS and JavaScript programming codes.	Upto K3

K1– KNOWLEDGE (REMEMBERING), K2–UNDERSTANDING, K3–APPLY



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WEB TECHNOLOGY

UNIT – I:

Internet usage - WWW and Web Browsers: Web Browsing software, Surfing the Internet, Chatting on Internet, Basic of electronic mail, Using Emails, Document handling, Network definition, Common terminologies: LAN, WAN, Node, Host, Workstation, bandwidth, Network Components: Servers, Clients, Communication Media.

UNIT – II:

Basic networking Concept: What is Networking, Local Area Networking (LANs), Metropolitan Area Network, MAN), Wide Area Network (WAN), Networking Topologies - Transmission media & method of communication - Cabling: straight through and cross over - Study of components like switches, bridges, routers, Wi-Fi router etc.- TCP/IP, IP addressing, MAC address, Subnet

UNIT – III:

HTML-Introduction HTML-Basic Formatting Tags, HTML-Grouping - HTML-Lists, HTML-Images, HTML-Hyperlink, HTML-Table, HTML-Iframe, HTML-Form

UNIT – IV:

Introduction to Cascading Style Sheets - Types of CSS, ID Selector, Tag Selector, Class Selector, CSS Properties, Type Properties, Background Properties, Block Properties, Box Properties List Properties, Border Properties

UNIT – V:

Introduction To JavaScript: JavaScript Basics: Need of scripting languages – Variables and Data Types: Declaring Variables – Life span of variables - Data Types - Operators: Assignment, comparison, computational and logical operators - Control Structures: Conditional Statements – Loop Statements: for, while, for in, break and continue statements.

TEXT BOOK:

Harley Hahn, *The Internet, Complete Reference*, Tata McGraw Hill, 1996.

REFERENCE BOOKS:

1. *HTML & CSS The Complete Reference*, 5th Edition, McGraw Hill, 2010.
2. Raj Kamal, *Internet and Web Technologies*, Tata McGraw-Hill, 2017.

DIGITAL TOOLS:

1. <https://www.geeksforgeeks.org/web-technology/>
2. <https://www.shiksha.com/online-courses/introduction-to-web-development-course-cour1177>
3. https://www.tutorialspoint.com/internet_technologies/internet_useful_resources.htm

Mapping of CO with PSO

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	2	1	2	3
CO2	1	2	3	2	3	2
CO3	2	1	2	2	2	2
CO4	2	2	3	3	2	2
CO5	2	1	2	3	3	3

3. Advanced Application 2. Intermediate Development 1. Introductory Level

COURSE DESIGNER: Dr. K. ANURATHA

Passed in the BoS Meeting held on 09/03/2024

Signature of the Chairman