Kadi Sarva Vishwavidyalaya
Faculty of Engineering & Technology
Second Year Bachelor of Engineering (CE/IT) – Semester III
(With effect from: Academic Year 2018-19)

Subject Code: CT305-N	Subject Title: IT Workshop
Pre-requisite	

Teaching Scheme (Credits and Hours)

Teaching Scheme				Total Credit	Evaluation Scheme					
L	T	P	Total		Theory		Mid Sem Exam	CIA	Practical	Total
Hours	Hours	Hours	Hours		Hours	Marks	Marks	Marks	Marks	Marks
02	00	04	06	04	03	70	30	20	30	150

Learning Objectives:

- The aim of this subject is to make the student familiar with fundamentals pertaining to web designing and web-based programming
- The course also intends to provide the fundamental aspects of using Open Source tools such as SciLab
- The course aims to enhance/create the ideology of freelancing among the students.

Outline of the Course:

Sr. No	Title of the Unit	Minimum Hours
1	Introduction to WWW	03
2	Introduction to HTML	03
3	CSS	04
4	JavaScript	05
5	XML and Ajax	06
6	PHP	07
7	SciLab	04
	Total	32

Total hours (Theory): 32
Total hours (Lab): 64
Total hours: 96

Detailed Syllabus:

Sr. No	Topic	Lecture Hours	Weightage (%)
1	**Introduction to WWW:** Protocols and programs, secure connections, application and development tools, the web browser, Server Configuration **Web Design:** Web site design principles, planning the site and navigation. **Web Hosting:** Study of FTP	03	10
2	**Introduction to HTML**: HTML 5,The development process, Html tags and simple HTML forms, web site structure **Introduction to XHTML**: XML, Move to XHTML, Meta tags, Character entities, frames and frame sets	03	10
3	**Style sheets :** Need for CSS, introduction to CSS, basic syntax and structure, using CSS, background images, colors and properties manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, CSS3	04	12
4	**JavaScript:** Client side scripting, What is JavaScript, How to develop JavaScript, simple JavaScript, variables, functions, conditions, loops and repetition **Advance script:** JavaScript and objects, JavaScript own objects, the DOM and web browser environments, forms and validations application, alternatives of Ajax. **Introduction to jQuery and Examples.**	05	16
5	**DHTML and AJAX:** Combining HTML, CSS and JavaScript, events and buttons, controlling your browser, Introduction to XML **Ajax:** Introduction, advantages & disadvantages, Purpose of it, Ajax based web.	06	18
6	**PHP:** Starting to script on server side, Arrays, function and forms, advance PHP, PHP Frameworks i.e Word press, CodeIgnitor **Databases:** MySql databse, Connection to Database server, creating database, selecting a database, Manipulation of data in database using PHP, PHP myadmin and database bugs.	07	22
7	**SciLab:** Installation and getting familiar with SciLab, Programming with SciLab, Useful SciLab functions	04	12
	Total	32	100

Instructional Method and Pedagogy:

- At the start of course, the course delivery pattern, prerequisite of the subject will be discussed.
- Lectures will be conducted with the aid of multi-media projector, black board, OHP etc.
- Attendance is compulsory in lecture and laboratory which carries 10 marks in overall evaluation.
- One internal exam will be conducted as a part of internal theory evaluation.
- Assignments based on the course content will be given to the students for each unit and will be evaluated at regular interval evaluation.
- Surprise tests/Quizzes/Seminar/tutorial will be conducted having a share of five marks in the overall internal evaluation.
- The course includes a laboratory, where students have an opportunity to build an appreciation for the concepts being taught in lectures.
- Experiments shall be performed in the laboratory related to course contents.

Learning Outcome:

On successful completion of this course, the student should be able to:

- understand the client server model in all existing applications.
- design their own web pages and also host to the server.
- acquire knowledge about the existing technologies in Internet.
- work as freelancer for designing WebPages.
- use open source software such as SciLab

E-Resources:

- http://nptel.ac.in/courses/106105084/
- https://www.w3schools.com/
- https://www.tutorialspoint.com/index.htm
- https://www.scilab.org/content/download/849/7901/file/Scilab_beginners.pdf
- http://www.php.net/
- https://www.mysql.com/

Reference Books:

1. Ralph Moseley, "Developing Web Application", Wiley- India
2. Robert D. Schneider, Hadoop for Dummies, Wiley India
3. "HTML 5, Black Book", Dreamtech Press
4. Harwani, "Developing Web Applications in PHP and AJAX", McGrawHill
5. Thomas Powell , "HTML & CSS: The Complete Reference, Fifth Edition", McGrawHill

List of experiments:

No	Name of Experiment
1	Design web pages for your college containing a description of the courses, departments, faculties, library etc. Use Href and list tags.
2	Create your class timetable using table tag.
3	Create user Student feedback form (use textbox, text area, checkbox, radio button, select box etc.)
4	Create a web page using frame. Divide the page into two parts with Navigation links on left hand side of page (width=20%) and content page on right hand side of page (width = 80%). On clicking the navigation

	Links corresponding content must be shown on the right hand side.
5	Create your resume using HTML tags also experiment with colors, text, link , size and also other tags you studied.
6	Design a web page of your home town with an attractive background color, text color, an Image, font etc. (use internal CSS).
7	Use Inline CSS to format your resume that you created.
8	Use External CSS to format your class timetable as you created
9	Use External, Internal, and Inline CSS to format college web page that you created
10	Make any logo and 5 PSD(Design) of Home page of website using Adobe Illustrator or Photoshop applying vectors and scalar , Filters etc
11	Develop a JavaScript to display today's date.
12	Develop simple calculator for addition, subtraction, multiplication and division operation using JavaScript
13	Create HTML Page with JavaScript which takes Integer number as input and tells whether the number is ODD or EVEN
14	Create HTML Page that contains form with fields Name, Email, Mobile No, Gender, Favourite Color and a button. Also write a JavaScript code to combine and display the information in textbox when the button is clicked.
15	Write a JavaScript code to rotate images after a specific time interval
16	Create an XML file and XML Schema to store student information like Enrolment Number, Name , Mobile Number and Email Id.
17	Create Document Type Definition (DTD) for above XML File.
18	Write a php program to check if number is prime or not.
19	Create HTML page that contain textbox, submit / reset button. Write php program to display this information and also store into text file.
20	Write a php script to read data from txt file and display it in html table (the file contains info in format Name: Password: Email)
21	Write a PHP Script for login authentication. Design an html form which takes username and password from user and validate against stored username and password in file
22	Write PHP Script for storing and retrieving user information from MySql table. 1. Design A HTML page which takes Name, Address, Email and Mobile No. From user (register.php) 2. Store this data in Mysql database / text file. 3. Next page display all user in html table using PHP (display.php)
23	Create one blog website using wordpress, using different available plug-in (take free available theme) But, try to implement all the features of blog website.
24	Implement the basic website structure using Code Ignitor Framewrok .
25	Using ajax fetch information from a database with AJAX.
26	Install SciLab and get familiar with general environment and console
27	Get simple mathematical/numerical operations executed in SciLab
28	Plot curves/graphs using the graphics window
	As part of experimentation, a small project / model / seminar / poster / other should be prepared / presented by student(s) based on the practical knowledge gained by this course at the end of the curriculum. The concerned laboratory faculty (in consultation with course coordinator) is empowered to design/decide the type/execution of this experiment. The student(s) are expected to present the same before their batch-mates.