Uka Tarsadia University

C. G. Patel Institute of Technology

B.Tech.

Semester – 5

030090510/030080510

WEB TECHNOLOGIES

EFFECTIVE FROM July-2017

Syllabus version: 1.01

SEMESTER – 5

Web Technologies
(030090510/030080510)

Credits: 2 (Theory) **Contact hours per week: 2 (Theory)**

Objective:

- To introduce fundamentals of internet technologies with concepts of website design.
- To provide an overview of HTML, CSS, PHP and JavaScript.
- To integrate the website with SQL database.

Outcome:

Upon completion of the course, the student shall be able to

CO1	Understand the concepts of technologies associated with the internet.
CO2	Implement and design a webpage using the basics of HTML and XHTML.
CO3	Design a webpage using the basics of CSS.
CO4	Understand the need of JavaScript and perform various functionalities in a webpage using JavaScript
CO5	Illustrate the need of server side technology like PHP.
CO6	To develop the web applications for different end users by using set of development tools like HTML, XHTML, CSS, JavaScript, XML and PHP.

B. Tech.	Subject	Hours
Sem 5	030090510/030080510 Web Technologies	2 hrs/week
	(Theory)	2 Credits
Sr. No.	Topic	Hours
	Unit – I	
1	**Introduction to WWW :** Protocols and programs, Secure connections, Application and development tools, The web browser.	3
	Unit – II	
2	**HTML and XHTML:** The development process and basic HTML, HTML elements and their properties, XML and move to XHTML, Meta tags, Character entities, Frames and frame sets, Inside browser.	6
	Unit – III	
3	**Cascading Style Sheet:** Need for CSS and introduction to CSS, Basic syntax and structure of CSS, Types of CSS and how to apply CSS to web pages.	6
	Unit – IV	
4	**JavaScript and DHTML :** Introduction of Client side scripting and JavaScript, Simple JavaScript, Variables, Functions, Conditions, Loops and repetition, Advance script, JavaScript and objects, JavaScript own objects, Forms and validations, Introduction to DHTML and controlling browser.	6
	Unit – V	
5	**PHP :** Introduction of client side scripting and PHP, Different types of variables, Functions, Decision making statements and looping statements in PHP.	3
	Unit – VI	
6	**Database connectivity with PHP:** Basic command, Data transfer, Session and cookie with PHP examples, Connection to server, Database connectivity.	6

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Practical
(030090510/030080510)
Web Technologies

Credit: 2 (Practical) **Contact hours per week: 4 (Practical)**

Sr. No.	Web Technologies(Practical)	Hours
1	Write a HTML code to display the following output using img, link, list, formatting tags 	4
2	Write a HTML code to create Time Table of your class using table tag.	4
3	Write a HTML code to create registration form as shown below:	4

		
4	Implement internal CSS for registration form.	4
5	Implement external CSS for registration form.	4
6	Implement embedded CSS for registration form.	4
7	a) Write a Javascript function to find maximum out of 3 numbers. b) Write a Javascript to show use of popup boxes. c) Write a Javascript to get details from visitor's browser and implement visitor counter.	4
8	a) Write a Javascript to create a button. On click on the button a new window should open up. b) Implement image gallery using Javascript.	4
9	Write JavaScript to validate registration form.	6
10	Write a PHP script to implement the following: a) Write a PHP script to display "Hello World" using echo and print. State the difference between the two functions. b) Write a PHP script to print table of a number using for, while and do-while loops. c) Write a PHP script to fetch values of registration form and display it in a tabular format. d) Write a PHP script to demonstrate array functions and associative array in PHP.	6
11	Write PHP code to implement following: a) Create a database StudentDB using PHP code. b) Create a table student as required for registration. c) Insert, updateand delete data into student table through HTML form.	8

12	Write PHP code to implement following: a) Select data from student table of "Surat" city using query. b) Update contact number of record of student whose email is "abc@gmail.com" using SQL query. c) Display all the tables in the database StudentDB. d) Display all the databases.	8

Text book:

1. Ralph Moseley - "Developing Web Application", Wiley India.

Reference books:

1. Kogent Learning Solutions Inc.- "Web Technologies Black Book", Dreamtech Press.
2. Joel Sklar- "Principles of Web Design", Cengage Learning.
3. B. M. Harwani- "Developing Web Application in PHP and AJAX",Tata McGraw Hill.

Course objectives and Course outcomes mapping:

- To introduce fundamentals of internet technologies with concepts of website design: CO1, CO2,CO3, CO4, CO5 and CO6.
- To provide an overview of HTML, CSS, PHP and JavaScript: CO2,CO3, CO4 and CO5
- To integrate the website with SQL database: CO5, CO6.

Course units and Course outcome mapping:

	CO1	CO2	CO3	CO4	CO5	CO6
Introduction to WWW	√					
HTML and XHTML		√				
Cascading Style Sheet			√			
JavaScript and DHTML				√		
PHP					√	
Database connectivity with PHP						√

Programme Outcomes

- **PO 1: Engineering knowledge:** An ability to apply knowledge of mathematics, science, and engineering.
- **PO 2: Problem analysis:** An ability to identify, formulates, and solves engineering problems.
- **PO 3: Design/development of solutions:** An ability to design a system, component, or process to meet desired needs within realistic constraints.
- **PO 4: Conduct investigations of complex problems:** An ability to use the techniques, skills, and modern engineering tools necessary for solving engineering problems.

- **PO 5: Modern tool usage:** The broad education and understanding of new engineering techniques necessary to solve engineering problems.
- **PO 6:** The engineer and society: Achieve professional success with an understanding and appreciation of ethical behaviour, social responsibility, and diversity, both as individuals and in team environments.
- **PO 7: Environment and sustainability:** Articulate a comprehensive world view that integrates diverse approaches to sustainability.
- **PO 8: Ethics:** Identify and demonstrate knowledge of ethical values in non-classroom activities, such as service learning, internships, and field work.
- **PO 9: Individual and team work:** An ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO 10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give/receive clear instructions.
- **PO 11: Project management and finance:** An ability to demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **PO 12: Life-long learning:** A recognition of the need for, and an ability to engage in life-long learning.

Programme Outcomes and Course Outcomes mapping:

Program Outcomes	Course Outcomes					
	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
PO 1	√	√	√	√	√	√
PO 2	√	√	√	√	√	√
PO 3	√	√	√	√	√	√
PO 4	√	√	√	√	√	√
PO 5		√	√	√	√	√
PO 6					√	√
PO 7						√
PO 8					√	√
PO 9		√	√	√	√	√
PO 10	√	√	√	√	√	√
PO 11	√	√	√	√	√	√
PO 12	√	√	√	√	√	√