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| **Course Code: CSE2258** | | **Course Title: Web Technologies Type of Course: Program core Theory** | | | | | | | **L-T- P- C** | 3 | 0 | | 0 | | | 3 |
| **Version No.** | |  | | 1.0 | | | | | | | | | | | | |
| **Course Pre- requisites** | |  | | NIL | | | | | | | | | | | | |
| **Anti-requisites** | |  | | **NIL** | | | | | | | | | | | | |
| **Course Description** | |  | | This course highlights the comprehensive introduction to scripting languages that are used for creating web-based applications.  The associated laboratory provides an opportunity to implement the concepts and enhance critical thinking and analytical skills. | | | | | | | | | | | | |
| **Course Objective** | |  | | **The objective of the course is to familiarize the learners with the concepts of Web Technology and attain Skill Development through Experiential Learning techniques.** | | | | | | | | | | | | |
| **Course Outcomes** | |  | | **On successful completion of this course the students shall be able to:**  **CO1:** Implement web-based application using client-side scripting languages.  **(Apply )**  **CO2**: Apply various constructs to enhance the appearance of a website. **(Apply)**  **CO3:** Apply server-side scripting languages to develop a web page linked to a database.  **(Apply)** | | | | | | | | | | | | |
| **Course Content:** | |  | |  | | | | | | | | | | | | |
| **Module 1** | | **Introduction to XHTML** | | | Quizzes and Assignments | | Quizzes on various features of XHTML, simple  applications | | | | |  | | **20**  **Sessions** | | |
|  | **Basics:** Web, WWW, Web browsers, Web servers, Internet.  **XHTML:** Origins and Evolution of HTML and XHTML: Basic Syntax, Standard XHTML Document Structure, Basic Text Markup, Images, Hypertext Links, Lists, Tables, Forms, Frames, Syntactic Differences between HTML and XHTML, Demonstration of applications using XHTML for Responsive web pages. | | | | | | | | | | | | | | | |
| **Module 2** | | **Advanced CSS** | | | Quizzes and assignments | | Comprehension based Quizzes and assignments; Application of CSS in  designing webpages | | | | |  | | **20**  **Sessions** | | |
|  | **Advanced CSS:** Layout, Normal Flow, Positioning Elements, Floating Elements, Constructing Multicolumn Layouts, Approaches to CSS Layout, Responsive Design, CSS Frameworks | | | | | | | | | | | | | | | |
| **XML:** Basics, Demonstration of applications using XML with XSLT. | | | | | | | | | | | | | | | | |
| **Module 3** | | | **PHP –**  **Application Level** | | | Quizzes and assignments | | Application of PHP in web designing | | | | | | | **20**  **Sessions** | |
| **PHP:** Introduction to server-side Development with PHP, Arrays, Superglobal Arrays, $GET and $ POST,  $\_SERVER Array, $\_Files Array, Reading/Writing Files, PHP Classes and Objects, Object Oriented Design, Working with Databases, SQL, Database APIs, Managing a MySQL Database. Accessing MySQL in PHP, Applications. | | | | | | | | | | | | | | | | |
| **List of Laboratory Tasks:**  **Experiment No. 1: Demonstration of XHTML features**  Level 1: Demonstration of various XHTML Tags (Level 1)  Level 2: Design and develop static web pages for an online Book store (Level 2).  **Experiment No. 2: Appli**  **cation of CSS in web designing**  Level 1: Design a document using XHTML and CSS to create a catalog of items for online electronic shopping.  Level 2: Create and save XML document for students’ information and display the same using cascaded style sheet.  **Experiment No. 3: Application of PHP in web designing.**  Level 1: Write a PHP program to read the personal information of a person such as first name, last name, age, permanent address, and pin code entered by the user into a table created in MySQL. Read the same information from the database and display it on the front end.  Level 2: Using PHP develop a web page that accepts book information such as ISBN number, title, authors, edition, and publisher and store information submitted through the web page in MySQL database.  **Experiment No. 4: Building a website.**  Build a website for organizing an International Conference. The conference website must be able to collect the author’s details and upload a file. | | | | | | | | | | | | | | | | |
| **Targeted Application & Tools that can be used: Xampp web server to be used to demonstrate PHP.** | | | | | | | | | | | | | | | | |
| **Project work/Assignment:** | | | | | | | | | | | | | | | | |
| **Assignments are given after completion of each module which the student need to submit within the stipulated deadline.** | | | | | | | | | | | | | | | | |
| **Textbook(s):**   1. Robert. W. Sebesta, "*Programming the World Wide Web"*, Pearson Education, 9th Edition, 2016.   2]Paul Deitel, Harvey Deitel, Abbey Deital,"Internet & World Wide Web How to Program", Fifth Edition, Pearson Education, 2021.  *3]CSS Notes for Professionals*, ebook available at https://books.goalkicker.com/CSSBook/ (Retrieved on Jan. 20, 2022)  4]Deitel, Deitel, Goldberg,"*Internet & World Wide Web How to Program*", Fifth Edition, Pearson  Education, 2021. | | | | | | | | | | | | | | | | |
| **Reference Book(s):**  **R1.**  Randy Connolly, Ricardo Hoar,"Fundamentals of Web Development”, Pearson Education India,  1st. Edition.2016.  **R2.** Jeffrey C. Jackson,"Web Technologies: A Computer Science Perspective", Pearson Education, 1st  Edition,2016.  **Additional web-based resources**  **W1.** W3schools.com  **W2.** Developer.mozilla.org/en-US/docs/Learn  **W3.** docs.microsoft.com  **W4.** informit.com/articles/ The Relationship Between Web 2.0 and Social Networking  <https://presiuniv.knimbus.com/user#/home> | | | | | | | | | | | | | | | | |
| **Topics related to development of “FOUNDATION”:**   1. Web, WWW, Web browsers, Web servers, Internet. 2. CSS, PHP. 3. Designing the website for healthcare. | | | | | | | | | | | | | | | | |
| The objective of the course is to familiarize the learners with the concepts of Web Technology and attain Skill Development through Experiential Learning techniques. | | | | | | | | | | | | | | | | |