

Course: 405-01: Web Designing-2

Course Code	405-01																																																						
Course Title	Web Designing-2																																																						
Credit	4																																																						
Course Category:	Major Course																																																						
Level of Course:	300- 399 (Higher Course)																																																						
Teaching per Week	4 Hrs (2 Hours Theory + 4 Hours of Lab. Work)																																																						
Minimum weeks per Semester	15 (Including class work, examination, preparation etc.)																																																						
Review / Revision	2023-2024																																																						
Implementation Year:	2024-2025																																																						
Purpose of Course	Web Design requires designers to create graphics, typography as well as images which are used only on the World Wide Web. While creating any design, web designers need to maintain balance between creating a good design as well as the speed and efficiency for the webpage/ website. This course deals with server-side communication.																																																						
Course Objective	To make students aware of web terminology and website designing tools. Student can understand and implement the real functions of website development.																																																						
Pre-requisite	Knowledge of HTML5, Bootstrap, JavaScript																																																						
Course outcome	CO1: Students will be able to create, organize and design websites. CO2: Students gain formal understanding of XML-based technologies which are used in Web-service. CO3: Students will be able to make dynamic changes to a web pages as well as respond to user and browser events through JQuery CO4: Students will be able to learn cross-browser supports via Ajax and Jason CO5: Students will be able to write asynchronous code using various techniques through Node.js																																																						
Mapping between Course Outcome(CO) and Program Specific Outcome (PSO):	<table border="1"> <thead> <tr> <th></th> <th>PSO1</th> <th>PSO2</th> <th>PSO3</th> <th>PSO4</th> <th>PSO5</th> <th>PSO6</th> <th>PSO7</th> <th>PSO8</th> </tr> </thead> <tbody> <tr> <td>CO1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CO2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CO3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CO4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CO5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	CO1									CO2									CO3									CO4									CO5								
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Course Content	<p>Unit-1 : Introduction of XML:</p> <p>1.1 Characteristic and Use of XML 1.2 XML syntax (Declaration, Tags, elements) 1.3 root element, case sensitivity 1.4 XML document: 1.4.1 Document Prolog Section 1.4.2 Document element section 1.5 XML declaration and rules of declaration.</p> <p>Unit-2: jQuery Fundamentals:</p> <p>2.1 Introduction and basics: 2.1.1 Advantage of jQuery and Syntax 2.1.2 jQuery Selectors: 2.1.3 jQuery Events (ready(),click(), keypress(),focus(),blur(),change())</p>																																																						

	<p>2.2 jQuery Effects: 2.2.1 Show/Hide, Fade, Slide, Stop, Chaining, Callback</p> <p>2.3 jQuery Manipulation methods: 2.1.1 Get/Set methods (text(), attr(), html(), val()) 2.1.2 Insert methods: (append(), prepend(),text(), before(), after(), wrap()) 2.1.3 Remove element methods : (remove(),empty(),unwrap()) 2.3.4 Query Get and Set CSS properties using css() method.</p> <p>Unit-3: JSON: (JavaScript Object Notation) 3.1 Concept and Features of JSON 3.2 Similarities and difference among JSON and XML 3.3 JSON objects(with string and Numbers)) 3.4 JSON Arrays and their examples : 3.4.1 Array of string, Array of Numbers, Array of Booleans 3.4.2 Array of objects, Multi-Dimensional Arrays 3.4.3 JSON comments</p> <p>Unit-4: AJAX (Asynchronous JavaScript and XML): 4.1 Fundamentals of AJAX technology: 4.1.1 Difference between Synchronous and Asynchronous web application 4.1.2 XMLHttpRequest technology 4.2 XMLHttpRequest 4.2.1 Properties :(onReadyStateChange, readyState, responseText, responseXML) 4.2.2 XMLHttpRequest Methods : (Open(), send(), setRequestHeader()) 4.3 Working of AJAX and its architecture</p> <p>Unit-5: Node.js : 5.1 Concepts, working and Features 5.1.1 Downloading Node.js 5.2 Setting up Node.js server(HTTP server) 5.2.1 Installing on window 5.2.2 Components 5.2.2.1 Required modules, Create Server(http.createServer()) 5.2.2.2 Request and response 5.3 Built-in Modules 5.3.1 require() function 5.3.2 User defined module: create and include 5.3.3 HTTP module 5.4 Node.js as Web-server: 5.4.1 createServer() , writeHead() method 5.4.2 Reading Query String, Split Query String 5.5 File System Module: 5.5.1 Read Files (readFile()) 5.5.2 Create Files(appendFile(),open(),writeFile()) 5.5.3 Update Files(appendFile(),writeFile()) 5.5.4 Delete Files(unlink()) 5.5.5 Rename Files(rename())</p>
<p>Reference Books</p>	<ol style="list-style-type: none"> 1) JavaScript and JQuery (Interactive Front-End Web Development) by Jon Duckett 2) JavaScript and JQuery (The missing manual) by David Sawyer MCFarland 3) Essential ASP.NET Web Forms Development, Full Stack Programming with C#, SQL, Ajax, and JavaScript, Robert E. Beasley, Publisher: Apress

	<p>4) Foundations of Ajax, Ryan Asleson, Schutla, Publisher: Apres</p> <p>5) Ajax: The Complete Reference, By Thomas Powell, ISBN: 978-0-07-149216-4</p> <p>6) Head First Ajax , Author: Rebecca M.Riordan, publisher: O'Reilly</p> <p>7) Practical Node.js, Author: Azat Mardan,ISBN:978-1-4842-3038-1, Publisher: Apress</p> <p>8) Node.JS Guidebook, BPB Publication, ISBN: 9789387284432, Author: Dhruti Shah.</p> <p>9) JavaScript for Modern Web Development, ISBN: 9789389328721, eISBN: 9789389328738, Authors: Abhilasha Sinha, Ranjit Battewad, Alok Ranjan</p> <p>10) Mastering HTML, CSS & Javascript Web Publishing, Authors:by Laura Lemay,Rafe Colburn, BPB Publication</p> <p>11) JavaScript by Example, Author: Elitle Quigley, Publication: Prentice Hall, ISBN: 9780137054893, 9780137054893.</p> <p>12) XML in easy steps, Publication: Tata McGraw Hill</p> <p>13) XML crash course, Publisher: Tata McGraw Hill, ISBN: 9780071815161, 9780071815161</p> <p>14) Beginning jQuery: From the Basics of jQuery to Writing your Own Plug-ins, by Jack Franklin Russ Ferguson,978-1484230268</p>
Teaching Methodology	Class Work, Discussion, Self-Study, Seminars and/or Assignments
Evaluation Method	50% Internal assessment. 50% External assessment.