SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU
LECTURE PLAN FOR THE ACADEMIC YEAR 2023 – 2024

Faculty	Dr. Kavitha H	Dept.	Information Science and Engineering
Class	3 Semester F Section	Course	Advanced Web Technology and Internet Applications(S3ISI02)

Course objectives:

This course will enable students to:

1. Acquire knowledge and skills for creation of web site considering both client and server-side programming.
2. Gain ability to develop responsive web applications.
3. Acquire skills to validate and handle errors using PHP.
4. Create web services using XML, JSON and PHP.

Sl.No.	Date	Topics	Remarks
		UNIT 1	
1.	08-11-2023	A Complicated Ecosystem, Definitions and History, Uniform Web Browsers.	
2.	09-11-2023	The Client-Server Model, Where Is the Internet?	
3.	10-11-2023	Working in Web Development.	
4.	15-11-2023	How the Web Works: Internet Protocols.	
5.	16-11-2023	Domain Name System.	
6.	17-11-2023	Uniform Resource Locators.	
7.	22-11-2023	Hypertext Transfer Protocol, Web Browsers.	
8.	23-11-2023	Web Servers.	
		UNIT 2	
9.	24-11-2023	What is HTML and Where did it come from?	
10.	29-11-2023	HTML Syntax, Quick Tour of HTML	
11.	30-11-2023	Elements, HTML5 Elements.	
12.	01-12-2023	Semantic Markup, Structure of HTML Documents.	
13.	06-12-2023	Introduction to CSS: What is CSS, CSS Syntax.	
14.	07-12-2023	Location of Styles, Selectors.	
15.	13-12-2023	The Cascade: How Styles Interact, The Box Model.	
16.	14-12-2023	CSS Text Styling.	
		UNIT 3	
17.	15-12-2023	JavaScript: Client-Side Scripting: What is JavaScript and What can it do? JavaScript Design Principles.	
18.	21-12-2023	Where does JavaScript Go? Syntax, JavaScript Objects	T1 18 to 20

				Dec.
19.	22-12-2023	The Document Object Model (DOM), JavaScript Events, Forms.		
20.	27-12-2023	Introduction to Server-Side Development with PHP: What is Server-Side Development?		
21.	28-12-2023	A Web Server's Responsibilities		
22.	29-12-2023	Quick Tour of PHP		
23.	03-01-2024	PHP Program Control		
24.	04-01-2024	PHP Functions		
UNIT 4				
25.	05-01-2024	PHP Arrays and Superglobals: Arrays		
26.	10-01-2024	$_GET and $_POST Super global Arrays		
27.	11-01-2024	$_SERVER Array		
28.	12-01-2024	$_Files Array		
29.	17-01-2024	Reading/Writing Files		
30.	18-01-2024	Error Handling and Validation: What are Errors and Exceptions?		
31.	19-01-2024	PHP Error Reporting,		
32.	24-01-2024	PHP Error and Exception Handling.		
UNIT 5				
33.	25-01-2024	Introduction to Advanced JavaScript and jQuery		
34.	27-01-2024	JavaScript Pseudo-Classes		
35.	01-02-2024	Introduction to jQuery Foundations, AJAX		
36.	02-02-2024	Asynchronous File Transmission, Animation, Backbone MVC Frameworks		
37.	03-02-2024	Introduction to XML Processing and Web Services: XML Processing, JSON, Overview of Web Services	T2 8 to 10 Feb.	
38.	15-02-2024	Creating Web Services in PHP.		
39.	16-02-2024	Consuming Web Services in PHP.		
40.	17-02-2024	Interacting Asynchronously with Web Services.		

TEXTBOOKS:

1	Randy Connolly, Ricardo Hoar Fundamentals of Web Development, Pearson Education India, 2nd Edition, 2018, ISBN: 978-9332575271.

REFERENCES:

1	Robin Nixon Learning PHP, MySQL &JavaScript with jQuery, CSS and HTML5", 4th Edition, O'Reilly Publications, 2015. (ISBN:978-9352130153).
2	Dean Wampler Programming Hive, , O'Reilly, Kindle Publication.

Course Outcomes:

Upon completion of this course the student will be able to:

CO1	Comprehend web development and its working.
CO2	Apply HTML and CSS to build web pages.
CO3	Apply client-side and server-side scripting languages to develop web applications.
CO4	Implement validation and error handling using PHP to build efficient server-side web applications.
CO5	Apply and implement JSON and XML scripts to share information across web applications.

Mapping of Course Outcomes (COs) to Program Outcomes (POs)&Program Specific Outcomes (PSOs)

		POs												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
COs	CO1	2		2											3	
	CO2			3											3	
	CO3	2													3	
	CO4	2													3	
	CO5			3											3	
	AVG	2		3											3	

Assessment Tools					
Direct AT	CO1	CO2	CO3	CO4	CO5
CIE (Individual)	√	√	√	√	√
SEE (Individual)	√	√	√	√	√
Assignments (Individual/Group)	√	√	√	√	√
Online courses (Individual)	√	√	√	√	√
Indirect AT					

Course delivery methods, assessment tools and sample questions:

CO1	Comprehend web development and its working.
Delivery Methods	Black Board Teaching, online resources, PowerPoint Presentation
Assessment Tools	Quiz1, TEST 1, SEE, Assignment, Course end survey
Sample Questions	1. Explain the client-server model. (L2) 2. Discuss the use of DNS and URL. (L2)

	3. Compare the different types of web browsers and servers. (L2)

CO2	Apply HTML and CSS to build web pages.
Delivery Methods	Black Board Teaching, online resources, PowerPoint Presentation
Assessment Tools	Quiz1, TEST 1, SEE, Assignment, Course end survey
Sample Questions	1. Explain the following: i) \<a\> ii) \<img\> iii) \<p\> iv) \<div\> elements with examples. (L2) 2. List the different selectors available in CSS and explain in detail. (L2) 3. Write HTML code for the following table: (L3)

Time Day		9.00 am to 1.15 pm	2.00 pm to 5.00 pm
Mon to Fri	Sub	Theory class	ML/WTA Lab
	FI	ABC/EFG/XYZ	AD block, 1st *floor
Sat	Sub	Extra curricular activity	
	FI		

CO3	Apply client-side and server-side scripting languages to develop web applications.
Delivery Methods	Black Board Teaching, Power point Presentation
Assessment Tools	Quiz2, TEST 2, SEE, Assignment, Course end survey

Sample Questions	1. Discuss the advantages and disadvantages of client-side scripting. (L2)
	2. With a neat diagram, explain client and server script execution. (L2)
	3. Write a PHP program to create a class STUDENT with the following specification. (L3)
	    Data members: Name, Roll number, Average marks
	    Member function: Read(getters) and write (setters)

CO4	Implement validation and error handling using PHP to build efficient server-side web applications.
Delivery Methods	Black Board Teaching, Power point Presentation
Assessment Tools	Quiz2, TEST 2, SEE, Assignment, Course end survey
Sample Questions	1. How do you read or write a file on the server from PHP? Give example. (L2) 2. Differentiate between errors and exceptions in PHP. (L2)

CO5	Apply and implement JSON and XML scripts to share information across web

	applications.
Delivery Methods	Black Board Teaching, Power point Presentation
Assessment Tools	TEST 2, SEE, Assignment, Course end survey
Sample Questions	1. Write DTD for the following XML code. (L3) <?XML version = "1.0" encoding = "ISO – 8859 – 1"?> <art> <painting id = "290"> <title> Balcony </title> <artist> <name> Manet</name> <nationality> France</nationality> </artist> <year> 1868 </year> <medium> oil on canvas </medium> </painting> </art> 2. What does $( ) short and stand for in JQuery? Explain any 3 JQuery form selectors. (L2)

Faculty 8|11|23

HoD 08/11/2023

Principal 08/11/2023

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