Course Code & Name	26CAPL7003 Advanced Web Programming Lab		
Teaching Hours /week (L: T:P: R)	0:0:4:0	Credits	2
CIE Marks	50	ESE Marks	50
Course Type	Lab (PCL)	Exam Hours	3
Prerequisites (if any)	26CAPC3001		

Course Objectives:

1. With a dynamic learn-by-doing focus, this laboratory course encourages the students to explore the designing of web applications by implementing the relevant and recent techniques.
2. This course challenges the students to exercise their creativity in both programming and designing.

Course Outcomes (COs)

At the end of the course students should be able to:

CO #	Course Outcomes	Bloom's Knowledge Level (KL)
CO 1	Design and construct structured web pages using markup languages and styling techniques.	3
CO 2	Implement interactive and dynamic web interfaces using dynamic client-side scripting.	3
CO 3	Develop server-side logic and database-driven dynamic web applications.	3
CO 4	Implement server-side logic and database-driven dynamic web applications.	3
CO 5	To design and develop web applications by implementing structured layouts, dynamic client-side scripting, server-side logic, and database-driven data management	6

Note: *K1- Remember, K2- Understand, K3- Apply, K4- Analyse, K5- Evaluate, K6- Create*

CO-PO Mapping Table (Mapping of Course Outcomes to Program Outcomes)

CO #	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	-	2	3	-	-	-	1
CO 2	3	2	3	3	-	-	-	2
CO 3	3	2	3	3	-	-	1	2
CO 4	3	2	3	3	-	-	1	2
CO5	3	2	3	3	2	1	1	2

Note: *1: Slight (Low), 2: Moderate (Medium), 3: Substantial (High), - : No Correlation*

Course Assessment Method

(CIE: 50 marks, ESE: 50 marks)

Continuous Internal Evaluation Marks (CIE)

Attendance	(Continuous Assessment) Preparation/Pre-Lab Work experiments, Viva and Timely completion of Lab Reports / Record	Internal Lab Examination-1	Internal Lab Examination - 2	Total
8	**22**	**10**	**10**	**50 Marks**

End Semester Examination Marks (ESE)

In Part A, all questions need to be answered and in Part B, each student can choose any one full question out of two questions.

Procedure/ Preparatory work/Design/ Algorithm	Conduct of experiment/ Execution of work/ troubleshooting/ Programming	Result with valid inference/ Quality of Output	Viva voce	Record	Total
10	**15**	**10**	**10**	**5**	**50 Marks**

Continuous Assessment (22 Marks)

1. Conduct of Lab Experiments/Project (12 Marks)
2. Timely Completion of Lab Reports/ Project Reports (5 Marks)
3. Viva Voce (5 Marks)

Final Marks Averaging: The final marks for conduct of experiments, viva, and records are the average of all the specified experiments in the syllabus.

Evaluation Pattern for End Semester Examination (50 Marks)

1. Procedure/Algorithm/Flowchart (10 Marks)
2. Conduct of Experiment/Execution of Work (15 Marks)
3. Quality of Output (10 Marks)
4. Viva Voce (10 Marks)
5. Record (5 Marks)

SYLLABUS

Expmt. No.	List of Experiments
1	Create a simple HTML file to demonstrate the use of different tags.
2	Create a HTML file to link to different HTML pages which contain images, tables, and also link within a page.
3	Create a HTML page with different types of frames such as floating frame, navigation frame & mixed frame.
4	Create a HTML file by applying the different styles using inline, external & internal style sheets.
5	Create a registration form using HTML.
6	Create a HTML page to explain the use of various predefined functions in a string and math object in java script.
7	Create a HTML registration form and to validate the form using JavaScript code.
8	Create a HTML page to change the background color for every click of a button using JavaScript Event Handling.
9	Create a HTML page to display a new image and text when the mouse comes over the existing content in the page using JavaScript Event Handling.
10	Create a HTML page to show online exams using JavaScript.
11	Develop a registration form using PHP and do necessary validations.
12	Compose Electricity bill from user input based on a given tariff using PHP.
13	Build a PHP code to store the name of students in an array and display it using print_r function. Sort and Display the same using asort & arsort functions
14	Build a PHP code to store names of Indian Cricket players in an array and display the same in an HTML table.
15	Develop a PHP program to connect to a database and retrieve data from a table and show the details in a neat format.
16	Using PHP and MySQL, develop a program to accept book information viz.

	Accession number, title, authors, edition and publisher from a web page and store the information in a database and to search for a book with the title specified by the user and to display the search results with proper heading

Note: Students can be given a group micro project, so that they learn to work in a team environment. They can also be trained on project management tools.

Text Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Web Technologies: HTML, JavaScript, PHP, Java, JSP, XML and AJAX	Uttam K. Roy	Oxford University Press	2nd Edition 2010
2	Programming the World Wide Web	Robert W. Sebesta	Pearson India	7th edition 2017

Reference Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	HTML & CSS: Design and Build Websites	Jon Duckett	John Wiley & Sons	First edition 2011
2	Learning PHP, MySQL & JavaScript	Robin Nixon	O'Reilly Media	5th edition 2018

Web References/ Video Links (NPTEL, SWAYAM…)	
Sl.No	**Link ID**
1	https://onlinecourses.swayam2.ac.in/nou25_cs23/preview
2	https://onlinecourses.swayam2.ac.in/aic20_sp32/preview
3	https://www.codecademy.com/catalog/subject/web-development

FISAT
Focus on Excellence