DHANALAKSHMI SRINIVASAN ENGINEERING COLLEGE
(AUTONOMOUS)
Approved by AICTE & Affiliated to Anna University, Chennai
Re-Accredited with 'A' Grade by NAAC, Accredited by TCS
Accredited by NBA(AERO, CSE, IT & MECH)
Re-Accredited by NBA(BME, ECE & EEE)
PERAMBALUR – 621 212, Tamil Nadu

COURSE PLAN

Name of the Faculty				
Designation/Department	**AP/IT**			
Course Code/Name	**U23ITT43 / WEB TECHNOLOGIES**			
Year/Section/Department	**II/C/IT**			
Credits Details	**L:3**	**T:0**	**P:0**	**C:3**
Total Contact Hours Required	**45**			

Syllabus:

UNIT I WEBSITE BASICS	**No. of Periods 9**
Internet Overview - Fundamental computer network concepts - Web Protocols - URL – Domain Name- Web Browsers and Web Servers- Working principle of a website –Creating a website - Client-side and server-side scripting.	
UNIT II WEB DESIGNING	**No. of Periods 9**
HTML – Form Elements - Input types and Media elements - CSS3 - Selectors, Box Model, Backgrounds and Borders, Text Effects, Animations, Multiple Column Layout, User Interface.	
UNIT III CLIENT-SIDE PROCESSING AND SCRIPTING	**No. of Periods 9**
JavaScript Introduction – Variables and Data Types-Statements – Operators - Literals-Functions Objects-Arrays-Built-in Objects- Regular Expression, Exceptions, Event handling, Validation - JavaScript Debuggers	
UNIT IV TYPESCRIPT	**No. of Periods 9**
Introduction of TypeScript, TypeScript Basics, Data types and variables, Destructuring and spread, Working with classes, working with interfaces, Generics, Modules and Name spaces, Ambients, Functions, Loops, Collections.	
UNIT V INTRODUCTION TO ANGULAR AND WEB APPLICATIONS FRAMEWORKS	**No. of Periods 9**
Introduction to AngularJS, MVC Architecture, Understanding attributes, Expressions and data binding, Conditional Directives, Style Directives, Controllers, Filters, Forms, Routers, Modules, Services; Web Applications Frameworks and Tools – Firebase- Docker- Node JS- React- Django- UI & UX.	

Objective:

1. To comprehend and analyze the basic concepts of web programming and internet protocols.
2. To describe how the client-server model of Internet programming works.
3. To demonstrate the uses of scripting languages
4. To practice server-side programming features – PHP, JSP.
5. To be familiar with database applications

Text Book:

1. Robin Nixon, "Learning PHP, MySQL, JavaScript, CSS & HTML5" 5th Edition,O'Reilly

publishers, 2018.
2. Paul Deitel, Harvey Deitel, Abbey Deitel, "Internet & World Wide Web - How to Program",6th edition, Pearson Education, 2020.

Reference Book:

1. Jeffrey C. Jackson, "Web Technologies-A Computer Science Perspective", PearsonEducation, 2007.
2. James F. Kurose, "Computer Networking: A Top-Down Approach", 6th Edition, Pearson Education, 2012
3. Steven Holzemer, "PHP – The Complete Reference", 1st Edition, Mc-Graw Hill, 2017
4. Fritz Schneider, Thomas Powell, "JavaScript - The Complete Reference", 3rd Edition,McGraw Hill Publishers, 2017

Website:

W1:https://www.slideshare.net/slideshow/it2255-web-essentials-unit-i-website-asicspdf/257880437
W2: https://www.geeksforgeeks.org/
W3: https://www.slideshare.net/slideshow/it2255-web-essentials-unit-iii-clientside-processing-and-scripting/257880583
W4: https://www.digitalocean.com/community/tutorials/understanding-destructuring-rest-parameters-and-spread-syntax-in-javascript

Online Mode of Study (if Any):

- https://archive.nptel.ac.in/courses/106/105/106105084/
- https://www.w3schools.com

Course Plan:

Topic Number	Topic	Reference Detail	Page Number	Mode of teaching	Number of Periods Required	Cumulative Period
UNIT I WEB SITE BASICS						
1	Internet Overview	R1	1	BB	1	1
2	Fundamental computer network concepts	R2	40	PPT	1	2
3	Web Protocols	R1	3	BB	1	3
4	URL	R1	25	BB	1	4
5	DomainName	R1	7	BB	1	5
6	Web Browsers and Web Servers	R1	23-44	BB	1	6
7	Working principle of a Website	W1	-	BB	1	7
8	Creating a Website	W1	-	BB	1	8
9	Client-side and server-side scripting	W1	-	PPT	1	9
Outcome of Unit I: **CO1:**Create simple Website by understand the basics						
UNIT II WEB DESIGNING						
10	HTML	R1	56	PPT	1	10
11	Form Elements	R1	91	PPT	1	11
12	Input types and Media elements	R1	72	BB	1	12
13	CSS3	R1	121	BB	1	13
14	Selectors, Box Model	R1	151	PPT	1	14

15	Backgrounds and Borders	T2	152	PPT	1	15
16	Text Effects, Animations	R1	140	BB	1	16
17	Animations, Multiple Column Layout	T2	191,203	BB	1	17
18	User Interface	T2	193	BB	1	18

Outcome of Unit II:
CO2: Apply HTML and CSS effectively to create interactive and dynamic websites

UNIT III CLIENT-SIDE PROCESSING AND SCRIPTING						
19	JavaScript Introduction	R4	3	PPT	1	19
20	Variables and Data Types-Statements	R1	200	BB	1	20
21	Operators	R1	204	BB	1	21
22	Literals	R1	208	BB	1	22
23	Functions	R1	209	PPT	1	23
24	Objects-Arrays-Built-in Objects	R1	228	BB	1	24
25	Regular Expression, Exceptions	R4	267	BB	1	25
26	Event handling, Validation	R4	415	BB	1	26
27	JavaScript Debuggers	T1	237	PPT	1	27

Outcome of Unit III:
C**O3:** Build dynamic web pages with validation using Java Script objects and apply different event handling mechanisms

UNIT IV TYPESCRIPT						
28	Introduction of TypeScript, TypeScript Basics	W2	-	BB	1	28
29	Data types and variables	W2	-	PPT	1	29
30	Destructuring and spread	W4	-	BB	1	30
31	Working with classes	W2	-	PPT	1	31
32	working with interfaces	W2	-	BB	1	32
33	Generics	W2	-	PPT	1	33
34	Modules and Name spaces	W2	-	BB	1	34
35	Ambients ,Functions,	W2	-	BB	1	35
36	Loops, Collections	W2	-	BB	1	36

Outcome of Unit IV:
CO4: Demonstrate simple web pages using Typescript

UNIT V SERVLETS AND DATABASE CONNECTIVITY						
37	Servlet	R1	307	PPT	1	37
38	Java Servlet Architecture	R1	308	BB	1	38
39	Servlet Life cycle	R1	313	BB	1	39
40	Form GET and POST actions	R1	315	BB	1	40
41	Sessions	R1	329	PPT	1	41
42	Cookies	R1	329	PPT	1	42
43	Database connectivity	R1	549	BB	1	43
44	JDBC Creation of simple	R1	550	PPT	1	44

	interactive applications					
45	Simple database applications.	R1	551	BB	1	45

Outcome of Unit V:

CO5: Illustrate Servlets in web applications

CO6: Create simple database applications.

Course Outcome:

At the end of course: Students should be able to

CO 1:Demonstrate simple website using HTML and CSS.

CO 2:Build dynamic web pages with validation using Java Script objects and apply different Event handling mechanisms.

CO 3: Illustrate server-side programs using Servlet and JSP.

CO 4: Demonstrate simple web pages in PHP and to represent data in XML format.

CO 5: Illustrate AJAX and web services to develop interactive web applications.

CO 6: Develop interactive web applications for real world problems

Course Outcome Vs Program Outcome Mapping:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	2	2	1	1	1	-	-	-	-	-	-	-	3	3
CO 2	3	2	2	1	1	-	-	-	-	-	-	-	3	2
CO 3	3	3	2	1	1	-	-	-	-	-	-	-	3	1
CO 4	3	3	2	1	1	-	-	-	-	-	-	-	3	2
CO 5	3	3	2	1	1	-	-	-	-	-	-	-	3	2
CO 6	2	2	2	1	1	-	-	-	-	-	-	-	3	3
Avg	2.6	2.5	1.8	1	1		-	-	-	-	-	-	3	1.8

[Levels of correlation: 3 (High), 2 (Medium), 1 (Low)]

Topic beyond Syllabus:

- React JS
- Angular JS

Assignment:

Web Portal	Assignment	Components	Topic Number with Topic/Unit Details	Relevance to CO
Web Portal 1	**--**	**Assessment – I (60)**	**Unit I and II**	**CO1 & CO2**
	2	**Poster/PPT Presentation (20)**	3. CSS3 (13) 4. Selectors, Box Model (14)	**CO 2**

Web Portal 2	**--**	**Assessment – II (60)**		**CO3 & CO4**
	3	**Seminar (20)**	5. Operators (21) 6. Literals (23)	**CO 3**
	4	**Case Study Report/ Mini Project/ Model Making (20)**	7. Modules and Name spaces (34) 8. Ambients ,Functions (35)	**CO 4**
Web Portal 3	**--**	**Model Exam (75)**		**CO1 to CO6**
	5	**Technical Aptitude (15)**	1. URL(4)	**CO 1- CO 6**
			2. Text Effects, Animations (16)	
			3. Operators (21)	
			4. Destructuring and spread (30)	
			5.Cookies(42) 6. Simpledatabase applications. (45)	
		Attendance (Course attendance-10)		

Submission Details:

Phase 1(Before AT 1)		**Phase 2 (Before AT 2)**		**Phase 3 (Model)**
Assignment 1	**Assignment 2**	**Assignment 3**	**Assignment 4**	**Assignment 5**

Google Class Code Details: 2tslvc7

Class Name: Web Technologies

PLAN OF ASSESSMENT TEST –DISTRIBUTION OF MARKS:

TEST	CO- MARK WISE DISTRIBUTION						BLOOM'S LEVEL MARK WISE DISTRIBUTION					
AT-1	CO1	CO2	CO3	CO4	CO5	CO6	BTL1	BTL2	BTL3	BTL4	BTL5	BTL6
	30	30	-	-	-	-						
AT-2	CO1	CO2	CO3	CO4	CO5	CO6	BTL1	BTL2	BTL3	BTL4	BTL5	BTL6
	-	-	30	30	-	-						
MODEL	CO1	CO2	CO3	CO4	CO5	CO6	BTL1	BTL2	BTL3	BTL4	BTL5	BTL6
	20	20	20	20	10	10						

PREPARED BY

AP/IT

VERIFIED BY

HOD/IT

APPROVED BY

PRINCIPAL