

DEPARTMENT OF INFORMATION TECHNOLOGY ENGINEERING



LESSION PLAN

SUBJECT: WEB TECHNOLOGY THEORY

BRANCH: 5TH SEM, CE&IOT

FACULTY NAME: MR. DINESH GUPTA

Jharsuguda Engineering School, Jharsuguda

LEARNING OUTCOMES:

After completion of the course, the students will be able to:

- Identify key web development protocols, technologies, and architectures.
- Explain the role of client-side and server-side scripting in dynamic web applications.
- Develop interactive web pages using HTML, CSS, JavaScript, and PHP.
- Compare different web application architectures and evaluate their scalability and security.
- Develop a functional, database-driven web application using modern web development tools.

Sl. No.	Period / Class	Time (min)	Unit	Topic to be covered	Teaching method
1.	1.	60	I	Unit No. 1 Introduction to www: Protocols and programs	Marker & talk
2.	2.	60	I	secure connections, application and development tools	Marker & talk
3.	3.	60	I	The web browser	Marker & talk , Live demo
4.	4.	60	I	what is server?	Marker & talk
5.	5.	60	I	Setting up UNIX and LINUX web servers	Marker & talk , Live demo
6.	6.	60	I	Logging users	Marker & talk
7.	7.	60	I	Dynamic IP	Marker & talk
8.	8.	60	I	Web Design: Website design principles, planning the site and navigation	Marker, Questioner + Revision+ Discussion
9.	9.	60	II	Unit No. 2 Web Systems Architecture:	Marker & talk
10.	10.	60	II	Architecture of Web based systems- client/server (2-tier) architecture	Marker & talk + Live Demo
11.	11.	60	II	3-Tier architecture	Marker & talk + Live Demo

Sl. No.	Period / Class	Time (min)	Unit	Topic to be covered	Teaching method
12.	12.	60	II	Building blocks of fast and scalable data access	Marker & talk
13.	13.	60	II	Data access Concepts - Caches	Marker & talk
14.	14.	60	II	Data access Concepts - Proxies-Indexes	Marker & talk + PPT
15.	15.	60	II	Data access Concepts - Load Balancers- Queues	Marker & talk + Real life example
16.	16.	60	II	Web Application architecture (WAA)	Chalk & talk
17.	17.	60	III	Unit No. 3 JavaScript: Basic knowledge of java script?	Marker & talk + Case Study
18.	18.	60	III	Client- side scripting	Marker & talk + Code
19.	19.	60	III	What is JavaScript?	Marker & talk
20.	20.	60	III	Simple JavaScript	Marker & talk + Code
21.	21.	60	III	Variables	Marker & talk + Code
22.	22.	60	III	Functions	Marker & talk + Code
23.	23.	60	III	Conditions	Marker & talk + Code

Sl. No.	Period / Class	Time (min)	Unit	Topic to be covered	Teaching method
24.	24.	60	III	Loops and repetition.	Marker & talk + Code + Question discussion + Revision
25.	25.	60	IV	Unit No. 4 Advance scripting: JavaScript and objects, JavaScript own objects	Marker & talk
26.	26.	60	IV	DOM and web browser environments, forms and validations	Marker & talk + Real life Exapls
27.	27.	60	IV	DHTML: Combining HTML, CSS and JavaScript , events and buttons, controlling your browser	Marker & talk + code + Live demo
28.	28.	60	IV	Ajax: Introduction advantages & disadvantages	Marker & talk
29.	29.	60	IV	Ajax based web application, alternatives of Ajax, XML, XSL and XSLT:	Marker & talk
30.	30.	60	IV	Introduction to XML, uses of XML, simple XML	Marker & talk + Live demo
31.	31.	60	IV	XML key components, DTD and Schemas, XML with application, XSL and XSLT	Marker & talk
32.	32.	60	IV	Introduction to Web Services	Marker + talk, Revision + Doubt clear

Sl. No.	Period / Class	Time (min)	Unit	Topic to be covered	Teaching method
33.	33.	60	V	Unit No. 4 PHP: Server-side scripting	Marker & talk + code
34.	34.	60	V	Arrays, function and forms,	Marker & talk + case study
35.	35.	60	V	Advance PHP Databases - Basic command with PHP examples	Marker & talk
36.	36.	60	V	Connection to server, creating database	Marker & talk + Live Examples
37.	37.	60	V	Selecting a database, listing database	Marker & talk
38.	38.	60	V	Listing table names creating a table, inserting data	Marker & talk + Live demo
39.	39.	60	V	Altering tables, queries, deleting Database, deleting data and tables	Marker & talk, case study
40.	40.	60	V	PHP my admin and database bugs.	Marker & talk, Questioner + Revision
41.	41.	60	VI	Unit No. 6 Introduction to Modern Frameworks: React	Marker & talk
42.	42.	60	VI	Angular	Marker & talk
43.	43.	60	VI	Node JS	Marker & talk + code

Sl. No.	Period / Class	Time (min)	Unit	Topic to be covered	Teaching method
44.	44.	60	VI	Bootstrap	Marker & talk
45.	45.	60	VI	Tailwind CSS and final revision	Marker & talk, Questioner + Revision

REFERENCES:

1. "Web Technologies--A Computer Science Perspective", Jeffrey C.Jackson
2. "Internet & World Wide Web How To Program", Deitel, Deitel, Goldberg, Pearson Education
3. "Web programming- Building Internet Application", Chris Bales
4. Web Applications: Concepts and Real World Design, Knuckles.


Faculty Signature


HOD Signature