



BUDDHA INSTITUTE OF MANAGEMENT

DEPARTMENT OF COMPUTER APPLICATION

ACADEMIC YEAR 2025-26 (ODD Semester)

LESSON PLAN

Semester: II	Section: A	Course Code: BMC 201	Contact Hours /week: 6
Course name: WEB TECHNOLOGY			# of credits: 3
Teacher's name: Mr. SURAJ KUMAR MISHRA			Designation: AP
Sessional Marks: 30	End Semester Examination Marks: 70		University Exam Hours: 3

Prerequisites if any:
NA

Content delivery methods:	By Face to face delivery, Presentation, Tutorial etc.
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COURSE SYLLABUS (as prescribed by University / Board)

Module No	UNIT Contents	Hours	COs
1	Web Page Designing: Introduction and Web Development Strategies, History of Web and Internet, Protocols Governing Web, HTML-Introduction, HTML Tags, HTML-Grouping Using Div & Span, HTML-Lists, HTML-Images, HTML- Hyperlink, HTML- Table, HTML-Iframe, HTML-Form, Introduction of CSS, CSS Syntax, External Style Sheet using < link >, Multiple Style Sheets, Value Lengths and Percentages, CSS-Selectors, CSS-Box Model, Floats, Clear, Introduction to Bootstrap.	19	C01
2	Scripting: Introduction to JavaScript, Creating Variables in JavaScript, Creating Functions in JavaScript, UI Events, Returning Data from Functions, Working with Conditions, looping in JavaScript, Block Scope Variables, Working with Objects, Creating Object using Object Literals, Manipulating DOM Elements with JavaScript	12	C02

3	Web Application development using JSP & Servlets: Servlet Overview and Architecture, Interface Servlet and the Servlet Life Cycle, Handling HTTP get Requests, Handling HTTP post Requests, Redirecting Requests to Other Resources, Session Tracking, Cookies, Session Tracking with Http Session. Java Server Pages (JSP): Introduction, Java Server Pages Overview, A First Java Server Page Example, Implicit Objects, Scripting, Standard Actions, Directives, Custom Tag Libraries.	14	C03
4	Spring: Spring Core Basics-Spring Dependency Injection concepts, Introduction to Design patterns, Factory Design Pattern, Strategy Design pattern, Spring Inversion of Control, AOP, Bean Scopes- Singleton, Prototype, Request, Session, Application, WebSocket, Auto wiring, Annotations, Life Cycle Call backs, Bean Configuration styles	18	C04
5	Spring Boot: Spring Boot- Spring Boot Configuration, Spring Boot Annotations, Spring Boot Actuator, Spring Boot Build Systems, Spring Boot Code Structure, Spring Boot Runners, Logger, BUILDING RESTFUL WEB SERVICES, Rest Controller, Request Mapping, Request Body, Path Variable, Request Parameter, GET, POST, PUT, DELETE APIs, Build Web Applications	12	C05

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Apply the knowledge of HTML and CSS to develop web application and analyze the insights of internet programming to implement complete application over the web.
CO2	Understand, analyze and apply the role of JavaScript in the workings of the web and web applications.
CO3	Understand, analyze and build dynamic web applications using servlet and JSP.
CO4	Develop Spring-based Java applications using Java configuration, XML configuration, annotation-based configuration, beans and their scopes, and properties.
CO5	Develop web application using Spring Boot and RESTful Web Services

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	2	3	-	-	-	1	1	-	2
CO2	2	3	3	2	2	-	-	-	-	-	1	1
CO3	3	3	3	3	3	1	-	-	2	1	-	2
CO4	2	3	2	3	2	-	-	-	1	-	-	1

CO5	3	3	3	3	3	2	1	1	2	2	2	3
Average	2.6	2.8	2.4	2.6	2.6	0.6	0.2	0.2	1.2	0.8	0.6	1.8

	PSO1	PSO2	PSO3
C01	2	1	1
C02	2	1	1
C03	2	1	1
C04	2	1	1
C05	2	1	1
Average	2	1	1

Correlation levels: 1-Slight (Low) 2-Moderate (Medium) 3-Substantial (High)

Gap in the syllabus	Topics related to array with function.
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Topics to be covered beyond syllabus	Bridge topics which are helpful to explain concept of array passing to function.
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LESSON PLAN

Lecture	Module	Scheduled			Conducted			
		Topic	*RBT Levels	C O Mapping	Date	Topic	Date	No. Of Students
1	I	Introduction and Web Development Strategies	L2	CO1				
2		History of Web and Internet, Protocols Governing Web	L2					
3		HTML-Introduction, HTML Tags	L2					

4		HTML-Grouping Using Div & Span	L2					
5		HTML-Lists, HTML-Images, HTML- Hyperlink,	L2					
6		HTML- Table	L2					
7		HTML-Iframe, HTML-Form	L2					
9		Tutorial-1						
10		Introduction of CSS, CSS Syntax	L2					
11		External Style Sheet using < link >	L2					
12		Multiple Style Sheets	L2					
13		Value Lengths and Percentages	L3					
14		CSS-Selectors, CSS-Box Model	L2					
15		Floats, Clear	L2					
16		Introduction to Bootstrap.	L2					
17		Tutorial-2						
18	II	Scripting: Introduction to JavaScript	L3	C02				
19		Creating Variables in JavaScript	L3					
20		Creating Functions in JavaScript	L3					

21	UI Events, Returning Data from Functions	L2					
22	Working with Conditions	L3					
23	Tutorial-3						
24	looping in JavaScript						
25	Block Scope Variables						
26	Working with Objects	L2					
27	Creating Object using Object Literals	L3					
28	Manipulating DOM Elements with JavaScript	L3					
29	Tutorial-4	L3					
30	Servlet Overview and Architecture	L3					
31	Interface Servlet and the Servlet Life Cycle						
32	Handling HTTP get Requests						
33	Handling HTTP post Requests						
34	Redirecting Requests to Other Resources						
35	Session Tracking						
36	Tutorial-5						

37		Cookies, Session Tracking with Http Session.	L2					
38		Java Server Pages Overview	L2					
39		A First Java Server Page Example	L2					
40		Implicit Objects,	L2					
41		Scripting, Standard Actions						
42		Directives, Custom Tag Libraries.						
43		Tutorial-6						
44		Spring Core Basics	L2					
45	III	Spring Dependency Injection concepts	L2	C03				
46		Introduction to Design patterns	L3					
47		Factory Design Pattern	L3					
48		Strategy Design pattern	L3					
49		Spring Inversion of Control						
50		AOP	L3					
51		Tutorial-7	L2					
52		Bean Scopes- Singleton	L3					
53	IV	Bean Scopes- Prototype	L2	C04				

54		Request, Session, Application	L2					
55		WebSocket, Auto wiring	L3					
56		Annotations	L3					
57		Life Cycle Call backs	L2					
58		Bean Configuration styles	L3					
59		Tutorial-8	L3					
60		Spring Boot Configuration	L3					
61		Spring Boot Annotations	L3					
62		Spring Boot Actuator	L3					
63		Spring Boot Build Systems						
64		Spring Boot Code Structure	L3					
65	V	Spring Boot Runners, Logger	L2	C05				
66		BUILDING RESTFUL WEB SERVICES	L2					
67		Tutorial-9	L2					
68		Rest Controller	L3					
69		Request Mapping						

69	Request Body	L2					
71	Path Variable	L3					
72	Request Parameter	L2					
73	GET, POST, PUT, DELETE	L2					
74	APIs, Build Web Applications	L3					
75	Tutorial-10	L3					

Class Test	Syllabus
CT-01	0-27
CT-02	28-55
PRE-AKTU	55-75

***Revised Bloom's Taxonomy (RBT) Levels:**

L1 – Remembering; L2 – Understanding; L3 – Applying; L4 – Analysing; L5 – Evaluating; L6 - Creating

References:

Text books :(As per University / Board syllabus)

T1. Burdman J., "Collaborative Web Development – Strategies and Best practices for Web Teams", Addison-Wesley.

T2. Bayross I., "Web Technologies", BPB Publications.

Reference Books:(As per University / Board syllabus)

R1. Schieldth H., "The Complete Reference – HTML & CSS", McGraw Hill.

R2. Walls C., "Spring Boot in Action", Manning Publications.

Faculty Sign

HOD's sign