



Model Institute of Engineering  
& Technology (Autonomous)  
**Course Handout**

Kot Bhalwal, Jammu

## **COURSE HANDOUT**

Web Technologies (MCA-302)

MCA-3rd SEMESTER

ACADEMIC YEAR (2024-25)

**Mr. Vishal Gupta**

Associate Professor

Department of Computer Applications



**IET**  
FUTURE BEGINS HERE....

Department of Computer Applications

Model Institute of Engineering & Technology (Autonomous)

Kot Bhalwal, Jammu - 181122

[www.mietjmu.in](http://www.mietjmu.in)



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



Please Do Not Print Unless Necessary



Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
MCA-302	Web Technologies	PCC	4	4	0	0	40	60	100

### COURSE OUTCOMES

At the end of the course the student will be able to:	
CO1	Develop a dynamic webpage by the use of java script and DHTML.
CO2	Write a well-formed web document.
CO3	Write server application in java and JSP to store sent data on the database.
CO4	Implement client and server programming in .NET Technologies.
CO5	Connect web applications to a DBMS and perform operations on Database

#### Unit-I

HTML & CSS: Text Formatting Tags, META Tag, Adding Lists, Table, embedding objects, Paragraphs, Formatting, Links, Head, Images, Tables, Lists, Blocks, Layout, Forms, Colors, Color values, Frame and Form, Form Controls, CSS, Defining Styles, Elements of Style, Linking a Style Sheet to an HTML Document, In-line Styles, External Style Sheets, Internal Style Sheets, Introduction to XML

(10 Hours)

#### Unit-II

Java Script: Variables, String manipulation, Mathematical Functions, Statements, Operators, Arrays, and Functions, Data and Objects, Regular Expressions, Built-in Objects, Events, Rollover, Buttons, Moving Images

(10 Hours)

#### Unit-III

Servlet and JSP: Servlet Life Cycle, Servlet Request and Response Disadvantages of Servlets, Reading Headers JSP: Scripting Elements, JSP Expression, JSP Declaration, Predefined variables/objects, using user defined functions, working with Databases Using JSP, Inserting, Updating, and Deleting Database Records

(10 Hours)

#### Unit-IV

ASP Controls: ASP. NET Standard Controls: Label, Textboxes, buttons, hyperlink, checkboxes, Regular expressions; Server pages: Creating Server pages, page Life Cycle, HTTP Request Object, HTTP Response Object, Post back, Tracing & Debugging ASP. NET page.

(10 Hours)

#### Unit-V

State Management in ASP: State Management and Types of State Management, HTTP Cookies, HTTP Session, HTTP Application, Query String Method, State Management using Post back URL, View State. Validation Controls, Data Bind Control and Types of Data Bind Controls Repeater, Data List etc.

(10 Hours)

#### Textbooks

S.No	Name of the Books	Name of the Author	Publisher Name	Edition (Pub.Yr.)
1	Internet and Worldwide Web	H. M. Deitel, P. J. Dietel and A. B. Goldberg	Pearson Education.	4th(2014)
2.	Web Enabled Commercial Application Development Using HTML, DHTML, JavaScript	Bayross Ivan	BPB Publications	4th (2010)
3	JSP: The complete Reference	Phil Hana	Osborne/McGraw-Hill	1st(2002)

#### Reference Books

Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1





S.No	Name of the Books	Name of the Author	Publisher Name	Edition (Pub.Yr.)
1	Web Development and Design Foundations with HTML5	Terry Felke-Morris	Pearson	9 <sup>th</sup> (2019)

9

COURSE PLAN		
Unit-I Web Technologies		
S.No	Topics	Recommended Books
1	Text Formatting Tags, META Tag, Adding Lists, Table, embedding objects, Paragraphs, Formatting	Book 2, Ch.1
2	Adding Lists, Table, embedding objects, Paragraphs	Book 2, Ch.1
3	Formatting, Links, Head, Images	Book 2, Ch.1
4	Tables, Lists, Blocks, Layout,	Book 2, Ch.1
5	Forms, Colors, Color values, Frame and Form, Form Controls	Book 2, Ch.1
6	CSS, Defining Styles, Elements of Style, Linking a Style Sheet to an HTML Document,	Book 1, Ch.6
7	In-line Styles, External Style Sheets, Internal Style Sheets, introduction to XML	Book 1, Ch.6
Unit-II Java Script		
7	Variables, String manipulation	Book 1, Ch.7
8	Mathematical Functions, Statements	Book 1, Ch.7
9	Operators, Arrays	Book 1, Ch.7 & Ch.11
10	Functions	Book 1, Ch.10
11	Data and Objects, Regular Expressions	Book 1, Ch.12
12	Built-in Objects, Events, Rollover, Buttons, Moving Images	Book 1, Ch.12
Unit-III Servlet and JSP		
13	Servlet Life Cycle, Servlet Request and Response Disadvantages of Servlets	Book 2, Ch.2
14	Reading Headers JSP: Scripting Elements, JSP Expression	Book 2, Ch.2
15	JSP Declaration, Predefined variables/objects, using user defined functions	Book 2, Ch.2
16	working with Databases	Book 2, Ch.2
18	Using JSP, Inserting, Updating the database record	Book 2, Ch.2
19	Using JSP, Viewing and Delete the database record	Book 2, Ch.2
Unit-IV ASP Controls		
20	ASP. NET Standard Controls: Label, Textboxes, buttons, hyperlink, checkboxes	Book 2, Ch.3
21	Regular expressions; Server pages: Creating Server pages	Book 1, Ch.4
22	Life Cycle, HTTP Request Object	Book 1, Ch.4
23	HTTP Response Object, Postback, Tracing & Debugging ASP. NET page.	Book 2, Ch.3
Unit-V State Management in ASP		
25	State Management and Types of State Management	Book 2, Ch.8
26	HTTP Cookies, HTTP Session, HTTP Application	Book 1, Ch.8





27	Query String Method, State Management using Postback URL	Book 2, Ch.8
28	View State. Validation Controls,	Book 1, Ch.8

#### ADDITIONAL WEB RESOURCES

1.	<b>MOOC:</b> Web Technologies <a href="https://www.coursera.org/learn/fundamentals-of-java-programming">https://www.coursera.org/learn/fundamentals-of-java-programming</a>
2.	<b>NPTEL:</b> Video lectures on Java Programming series by Prof. Debasis Samanta Department of Computer Science & Engineering, IIT Kharagpur <a href="https://archive.nptel.ac.in/courses/106/105/106105191/">https://archive.nptel.ac.in/courses/106/105/106105191/</a>

#### GRADING AND ASSESSMENT

- **Sessional Test:** 20 marks
- **Assignment:** 10 marks
- **Attendance:** 10 marks
- **Final Examination:** 60 marks

#### COURSE POLICIES

- **Attendance:** Minimum 75% attendance is mandatory to appear in the final examination of the course.
- **Academic Integrity:** MIET's academic integrity policies apply. Plagiarism will not be tolerated.
- **Late Submissions:** Assignments and projects must be submitted by the specified timelines.

#### FACULTY INFORMATION

- **Office Hours**  
Monday (12:05 PM - 12:55 PM)  
Friday (12:05 PM - 12:55 PM)
- **Contact Information**  
[vishal.mca@mietjammu.in](mailto:vishal.mca@mietjammu.in)