

AC – 20/04/2024
Item No. – 6.6 Sem. I (6b)

As Per NEP 2020

University of Mumbai



Syllabus for Basket of Open Elective Courses	
Board of Studies in Computer Science	
UG First Year Programme	
Semester	I
Title of Paper	Credits 2/ 4
I) Web Designing	2
	2
From the Academic Year	2024 – 2025

Open Elective Courses

Name of the Course: Web Designing

Sr. No.	Heading	Particulars
1	Description the course:	<p>Introduction:</p> <p>This course offers a comprehensive exploration of web development, covering essential technologies such as HTML, CSS, JavaScript, and PHP. Students will gain practical skills and knowledge necessary to create dynamic and visually appealing websites.</p> <p>Relevance:</p> <p>In today's digital age, web development skills are in high demand across various industries. Understanding HTML, CSS, JavaScript, and PHP is crucial for anyone interested in pursuing a career in web development or related fields.</p> <p>Usefulness:</p> <p>The skills acquired in this course are highly transferable and applicable in a wide range of professional settings. Whether students aim to become web developers, designers, or entrepreneurs, proficiency in web development technologies is invaluable.</p> <p>Application:</p> <p>Students will learn to apply their knowledge of HTML, CSS, JavaScript, and PHP to develop interactive websites and web applications. Through hands-on projects and exercises, they will gain practical experience in building real-world solutions.</p> <p>Interest:</p> <p>The course content is designed to engage students with a passion for technology and creativity. From creating visually appealing designs to implementing dynamic functionality, students will find ample opportunities to explore and express their interests.</p> <p>Connection with Other Courses:</p> <p>This course serves as a foundation for further studies in web development and related disciplines. It complements other technology courses by providing essential skills and knowledge that can be applied across</p>

		<p>various domains.</p> <p>Demand in the Industry:</p> <p>The demand for skilled web developers continues to grow as businesses and organizations increasingly rely on their online presence. Graduates of this course will be well-equipped to meet this demand and contribute effectively in the industry.</p> <p>Job Prospects:</p> <p>Completion of this course opens up numerous job opportunities in web development, design, digital marketing, e-commerce, and more. With the skills acquired, students can pursue roles such as front-end developer, web designer, full-stack developer, or freelance web developer.</p>
2	Vertical:	Open Elective
3	Type:	Practical
4	Credits:	2 credits (1 credit = 30 Hours of Practical work in a semester)
5	Hours Allotted:	60 hours
6	Marks Allotted:	50 Marks
7	<p>Course Objectives (CO):</p> <p>CO 1. Familiarize students with core web development technologies such as HTML, CSS, JavaScript, and PHP.</p> <p>CO 2. Develop students' skills in creating structured and visually appealing web pages using HTML and CSS.</p> <p>CO 3. Enable students to add interactivity and dynamic behavior to web pages using JavaScript.</p> <p>CO 4. Introduce students to basic web design principles and best practices.</p> <p>CO 5. Provide practical experience through hands-on exercises and projects.</p>	
8	<p>Course Outcomes (OC):</p> <p>After successful completion of this course, students would be able to -</p> <p>OC 1. Demonstrate proficiency in HTML markup and CSS styling to create well-structured and visually appealing web pages.</p> <p>OC 2. Implement interactivity and dynamic behavior on web pages using JavaScript and PHP.</p> <p>OC 3. Apply basic web design principles to create user-friendly and aesthetically pleasing websites.</p> <p>OC 4. Analyze and solve problems related to web development, including troubleshooting code and debugging errors.</p> <p>OC 5. Develop basic web applications and prototypes using HTML, CSS, JavaScript, and PHP.</p>	

	OC 6. Collaborate effectively in a team environment on web development projects.
9	<p>Modules:</p> <p>Module 1: Basics of Web Development (HTML and CSS) (30 hours)</p> <p>Understanding the Internet and World Wide Web:</p> <p>Introduction to the Internet and its applications. Overview of email, Telnet, FTP, e-commerce, and e-business. Basics of Internet infrastructure: ISPs, DNS, URLs, and HTTP.</p> <p>HTML5 Fundamentals:</p> <p>Basic Elements of HTML: Introduction to HTML tags for creating the structure of web pages.</p> <p>Formatting Text: Applying basic text formatting using HTML tags.</p> <p>Organizing Content: Using lists and headings to organize content.</p> <p>Creating Links: Making hyperlinks to connect web pages.</p> <p>HTML Tables: Structuring data using HTML tables for better presentation and organization.</p> <p>Working with Multimedia and Forms:</p> <p>Adding Images: Inserting images onto web pages and understanding image formats.</p> <p>Colors and Styling: Applying colors and basic styles to web elements.</p> <p>Forms and User Input: Creating interactive forms for user input and data submission.</p> <p>Styling with CSS</p> <p>Introduction to CSS: Understanding the role of Cascading Style Sheets in styling web pages.</p> <p>Selectors and Properties: Using CSS selectors and properties to style HTML elements.</p> <p>Background and Fonts: Applying background styles and working with fonts.</p> <p>Positioning Elements: Understanding CSS properties for positioning elements on a web page.</p> <p>Module 2: JavaScript and Dynamic Web Content (30 hours)</p> <p>JavaScript:</p> <p>Integrating JavaScript: Using JavaScript code within HTML documents for interactivity.</p> <p>Programming Basics: Understanding JavaScript variables, operators, and control flow.</p> <p>Functions and Events: Defining functions and handling events for user interaction.</p> <p>Working with Forms: Validating form data and handling user input with JavaScript.</p>

	<p>Dynamic content with PHP</p> <p>Basics of Server-side Scripting: Understanding the role of PHP in server-side scripting.</p> <p>Variables and Data Types: Declaring variables, working with data types, and type coercion in PHP.</p> <p>Control Structures: Implementing conditional statements and loops in PHP scripts.</p> <p>Sessions and Cookies: Introduction to managing user sessions and using cookies for data storage.</p> <p>Working with Databases: Connecting to databases, executing SQL queries, and processing query results.</p>													
10	<p>Text Books</p> <ol style="list-style-type: none"> 1. HTML 5 Black Book, Covers CSS 3, JavaScript, XML, XHTML, AJAX, PHP and jQuery, 2ed, Dreamtech Press, 2016 2. Web Programming and Interactive Technologies, scriptDemics, StarEdu Solutions India, 2018 3. PHP: A Beginners Guide, Vikram Vaswani, TMH 													
11	<p>Reference Books</p> <ol style="list-style-type: none"> 1. HTML, XHTML, and CSS Bible Fifth Edition, Steven M. Schafer, WILEY, 2011 2. Learning PHP, MySQL, JavaScript, CSS & HTML5, Robin Nixon, O'Reilly, 2018 3. PHP, MySQL, JavaScript & HTML5 All-in-one for Dummies, Steve Suehring, Janet Valade Wiley, 2018 													
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%												
13	<p>The internal evaluation will be determined by the completion of practical tasks and the submission of corresponding write-ups for each session. Each practical exercise holds a maximum value of 10 marks. The total evaluation, out of 100 marks, should be scaled down to a final score of 20 marks.</p> <hr/> <p>Total: 20 marks</p>	<p>A Semester End Practical Examination of 2 hours duration for 30 marks as per the paper pattern given below.</p> <p>Certified Journal is compulsory for appearing at the time of Practical Exam</p> <hr/> <p>Total: 30 Marks</p>												
14	<p>Format of Question Paper:</p> <p>Total Marks: 30 Duration: 2 Hours</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Question</th> <th style="width: 50%;">Practical Question Based On</th> <th style="width: 25%;">Marks</th> </tr> </thead> <tbody> <tr> <td>Q. 1</td> <td>Module 1</td> <td>12</td> </tr> <tr> <td>Q. 2</td> <td>Module 2</td> <td>12</td> </tr> <tr> <td>Q. 3</td> <td>Viva</td> <td>06</td> </tr> </tbody> </table>		Question	Practical Question Based On	Marks	Q. 1	Module 1	12	Q. 2	Module 2	12	Q. 3	Viva	06
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OPEN ELECTIVE COURSES

Year	Sem.	Course Code	Course Title	No of Credits	No of Lectures Hours	Total Credits
1	I	OE1	Open Source Technologies	2	30	4
		OE2	Web Designing	2	30	
	II	OE3	Social Media Marketing	2	30	4
		OE4	Multimedia & Design	2	30	
II	III	OE5	Cyber & Digital Safety	2	30	2
	IV	OE6	Data Analytics	2	30	2

Sign of the BOS Chairman
Dr. Jyotshna Dongardive
 Ad-hoc BOS (Computer Science)

Sign of the Offg. Associate Dean
Dr. Madhav R. Rajwade
 Faculty of Science & Technology

Sign of Offg. Dean
Prof. Shivram S. Garje
 Faculty of Science & Technology