



MCA (Master of Computer Applications)
MCA (Master of Computer Applications) Semester II

Course Code	PS02CMCA53	Title of the Course	WEB TECHNOLOGY
Total Credits of the Course	4	Hours per Week	4

Course Objectives:	<ol style="list-style-type: none">1. To learn the fundamentals of how the World Wide Web works.2. To learn the basic protocols and standards of the World Wide Web.3. To learn design and development of websites and web-based applications using HTML5, CSS3 and JavaScript.4. To learn to develop dynamic database-driven websites using PHP.
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Course Content		
Unit	Description	Weightage* (%)
1.	Client-side Web Technologies - I <ul style="list-style-type: none">- Introduction to HTTP and HTML5- URL format- HTML5 document structure- Headers, body, declarations- Elements, element ID, name, attributes, events- HTML5 media- Forms- HTTP Verbs- Introduction to the DOM- Introduction to CSS3- CSS3 Syntax- Different properties, values and units- Specifying colors	25
2.	Client-side Web Technologies - II <ul style="list-style-type: none">- CSS3 selectors, classes- CSS3 precedence rules- Introduction to media query- Introduction to JavaScript- JavaScript syntax- Variables: declaration, data type- Strings, numbers, arrays- Operators- Functions- Variable scope	25





	<ul style="list-style-type: none">- Event handling- Client-side form validation- DOM access and manipulation from JavaScript- Built-in objects	
3.	Server-side Web Development Using PHP – I <ul style="list-style-type: none">- Introduction to server-side scripting- Introduction to PHP- Data types, variables, constants, operators- Flow Control and looping- Strings, arrays, functions- Regular expressions, server-side input validation- Superglobals- Headers- Handling file uploads- Maintaining state: sessions, cookies, query parameters, hidden fields- File handling	25
4.	Server Side Web Development Using PHP – II <ul style="list-style-type: none">- Introduction to MySQL- Database Connectivity in PHP- Exception handling- Security - authentication and authorization- Handling special characters in input- SQL injection attacks and prevention- Introduction to object-oriented programming with PHP	25

Teaching-Learning Methodology	Blended learning approach incorporating traditional classroom teaching as well as online / ICT-based teaching practices
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%





Course Outcomes: Having completed this course, the learner will be able to

1.	know of the fundamentals of how the World Wide Web works.
2.	know of the basic protocols and standards of the World Wide Web.
3.	design and develop web pages using HTML5 and CSS3.
4.	have knowledge of JavaScript and client-side web development.
5.	create HTML forms.
6.	have knowledge of PHP.
7.	carry out server-side web development using PHP.
8.	create dynamic website utilizing data from a database.
9.	carry out state management and implement basic security in a website or web application.

Suggested References:

Sr. No.	References
1.	John Dean, "Web Programming with HTML5, CSS, and JavaScript", Publisher(s): Jones & Bartlett Learning, 2018, ISBN: 9781284091809.
2.	Robin Nixon, Learning PHP, MySQL, JavaScript, CSS & HTML5, O'Reilly.
3.	Time Converse and Joyce Park with Clark Morgan, PHP5 and MySQL Bible – Wiley Publishing Inc., First Edition, 2004, ISBN 81-265-0521-4.
4.	Steve Suehring Tim Converse Joyce Park: PHP6 and MySQL Bible - Wiley Publication.
5.	Elizabeth Naramore, Beginning PHP5, Apache, MYSQL web Development, Wiley Publishing Inc.
6.	Danny Goodman, Machael Morrison , "JavaScript Bible", 3rd edition.

On-line resources to be used if available as reference material

1.	HTML documentation.
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SARDAR PATEL UNIVERSITY
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(Reaccredited with 'A' Grade by NAAC (CGPA 3.25))
Syllabus with effect from the Academic Year 2021-2022

2.	CSS documentation.
3.	JavaScript documentation.
4.	PHP documentation.

