

Sri Sathya Sai College for Women, Bhopal

(An Autonomous College affiliated to Barkatullah University, Bhopal)

(NAAC Accredited 'A' Grade)



SYLLABUS

SESSION- 2022-23

UG I YEAR

SUBJECT: VOCATIONAL

Web Designing

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Sri Sathya Sai College for Women, Bhopal

(An Autonomous College Affiliated to Barkatullah University Bhopal)

Department of Higher Education, Govt. of M.P.

Under Graduate Syllabus (Annual Pattern)

As recommended by Central Board of Studies and approved by the Governor of M. P.

wef 2021-2022

(Session 2022-23)

(NEP-2020)

Class / कक्षा	UG	
Year / वर्ष	I Year	
Course Title / पाठ्यक्रम का शीर्षक	Web Designing	
Course Type / पाठ्यक्रम का प्रकार	Vocational	
Credit Value/ क्रेडिट मान	4	
Max. Mark/ अधिकतम अंक	Max. Marks: 100	Min. Marks: 35

After studying this Course the student will be able to –

- Code a handful of useful HTML & CSS examples
- Build semantic, HTML & CSS webpage
- Write basic scripts
- Use Names, Objects, and Methods
- Add Interactivity to a Web Page

Create Dynamic Web Pages using Java Script in HTML forms.

Expected Job Role / Career opportunities Job Role - Web Designer / Front End Developer/
Creative Ad Designer

Job Description –Web designers develop functional and appealing web pages, websites, web applications, online advertisements for individuals, businesses and government agencies to establish their online presence. They use knowledge of computer programming and graphic design to create websites that meet client needs.

Career Opportunities –

Typical employers of web designers are –

1. Software companies
2. IT consultancies
3. Specialist web design companies
4. Large corporate organisations
5. Any organisation that uses computer systems
6. Self-employment/freelance work is often possible for individuals with appropriate experience.
7. Vacancies are advertised online, by career services and by recruitment agencies.

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Particular

Unit-I	<p>Introduction to Internet- World Wide Web, Internet Addressing, Browser, URL, Web server, website, homepage, Domain Name. Basic concepts.</p> <p>Softwares for Web Designing- Notepad/Notepad++, Dreamweaver, Blue Griffon, Net beans, Sea Monkey, Word press, Sublime.</p> <p>Introduction to HTML: HTML Tags and Attributes, HTML Basic Tags, Formatting Tags, HTML Color Coding, Div and Span Tags for Grouping.</p> <p>Lists: Unordered Lists, Ordered Lists, Definition list. Images: Image and Image Mapping</p> <p>Hyperlink: URL - Uniform Resource Locator, URL Encoding. Table: <table>, <th>, <tr>, <td>, <caption>, <thead>, <tbody>, <tfoot>, <colgroup>, <col>. Attributes Using Iframe as the Target</p> <p>Form: <input>, <textarea>, <button>, <select>, <label></p> <p>Headers: Title, Base, Link, Styles, Script</p> <p>HTML Meta Tag, XHTML, HTML Deprecated Tags & Attributes</p>
Unit-II	<p>CSS: Introduction, Features and benefits of CSS, CSS Syntax, External Style Sheet using <link>, Multiple Style Sheets, Value Lengths and Percentages.</p> <p>Selectors: ID Selectors, Class Selectors, Grouping Selectors, Universal Selector, Descendant / Child Selectors, Attribute Selectors, CSS – Pseudo Classes.</p> <p>Color Background Cursor: background-image, background-repeat, background-position, CSS Cursor</p> <p>Text Fonts: color, background-color, text-decoration, text-align, vertical-align, text-indent, text-transform, white-space, letter-spacing, word-spacing, line-height, font-family, font-size, font-style, font-variant, font-weight.</p>
Unit-III	<p>Lists Tables: list-style-type, list-style-position, list-style-image, list-style, CSS Tables (border, width & height, text-align, vertical-align, padding, color)</p> <p>Box Model: Borders & Outline, Margin & Padding, Height and width, CSS Dimensions.</p> <p>Display Positioning: CSS Visibility, CSS Display, CSS Scrollbars, CSS Positioning (Static Positioning, Fixed Positioning, Relative Positioning, Absolute Positioning), CSS Layers with Z-Index.</p> <p>Floats: The float Property, The clear Property, The clearfix Hack.</p>

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Unit-IV	<p>The JavaScript: Nature of JavaScript, Script Writing Basics, Enhancing HTML Documents with JavaScript, The Building Blocks.</p> <p>Introduction to JavaScript, JavaScript Engines, Values, Variables and Operators, Variable Mutation Basic Operators, Operator Precedence, JavaScript Types, Types Definition, Types in JavaScript, Objects, Type Conversion and Coercion, Static vs Dynamic Type Checking.</p> <p>JavaScript Conditionals: Introduction to Conditionals, Conditionals in JavaScript, Ternary Operators and Conditionals. Conditional Ladder & Switch statement.</p> <p>JavaScript Arrays: Introduction to Arrays, Declaring and Mutating Arrays, Array Methods and Properties, Replication with Array Methods, Multi-dimensional Arrays.</p>
Unit-V	<p>JavaScript Loops: Introduction to Loops, Loops in JavaScript, While and Do/While Loops, For Loops, Break and Continue in Loops, Iterating Arrays, Iterating Objects.</p> <p>JavaScript Functions: Introduction to Functions, Functions in JavaScript, Nested Functions in JavaScript, Arrow Functions in JavaScript, Function as an Argument, Function as the Returned Object,</p> <p>JavaScript Scope: Scope Introduction, Scope in JavaScript, Lexical Scope, Module Scope. Method of Adding Interactivity to a Web Page, Creating Dynamic Web Pages; Concept of JavaScripting the Forms.</p> <p>Java Scripting the Forms, Basic Script Construction, Talking to the Form Objects, Organizing t Objects and Scripts, Field-Level Validation, Check Required Fields like Validating Zip Code Automated Formatting, Format Phone, Format Money, Automatic Calculation, Calculate Expiration Date, Calculate Amount etc.</p>
Unit-VI	<p>Phases of Website Design and Development - Gathering information, Planning, Designing, Development, Testing, Website maintenance.</p> <p>Basic Elements of good Web Design— Content, Usability, Aesthetics(solid layout, effective typography, the right colour scheme, appropriate design elements), Visibility, Interaction.</p> <p>Parameters for a good website design – website design goal, well designed and functional, simple content & easy to navigate, connectivity & compatibility, limit use of fonts, customize the content according to the target audience, fluidity in use across platforms, readily accessible contact and location, optimized for search and the social web.</p> <p>Qualities of a good Web Designer – Great Communication, Creativity, Able to Meet Deadlines, Problem-Solving Skills, Passion, Self-Discipline, Software for Design, An Expansive Portfolio, Solid Design skills, self-learning, ability to work collaboratively, presentation skills.</p> <p>Web Publishing- Web Hosting Basics, Types of Hosting Packages, Registering domains, Defining Name Servers, Using Cpanel, Creating Emails in Cpanel, Using FTP Client, Maintaining a Website.</p>

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Suggestive Books:

1	HTML And CSS: Design And Build Websites, Wiley	Jon Dockett
2	Learning Web Design: A Beginner's Guide To HTML, CSS, JavaScript, And Web Graphics, O'reilly	Jennifer Niederst Robbins
3	Html, XHTML, And CSS Bible, Wiley	Steven M. Schafer
4	Basics Of Web Design: Html5 & Css3, 5th Edition, Pearson Education, 2019.	Felke-Morris
5	Web Development & Design Foundations With Html5, 10th Edition, Addison-Wesley, 2020.	Felke-Morris
6	Richard York, Beginning CSS: Cascading Style Sheets For Web Design, Wiley India.	Ian Pouncey

2. Suggestive digital platforms web links:

- <https://www.w3schools.com/>
- <https://spoken-tutorial.org/>
- <https://www.doc-developpement-durable.org/file/Projets-informatiques/cours-&-manuels-informatiques/htm-html-xml-ccs/Sams%20Teach%20Yourself%20HTML,%20CSS,%20and%20JavaScript%20All%20in%20Onpdf> (PDF: 608 pages)
- <http://www.nematrian.com/Pages/HTMLCSSJSCombined.pdf> (PDF: 514 pages)
- https://www.daoudisamir.com/references/vs_ebooks/html5_css3.pdf (PDF: 681 pages)

Suggested equivalent online courses:

- <https://nptel.ac.in/courses/106/105/106105084/> (NPTEL Course: Internet Technology – Part of the Course)
- https://onlinecourses.swayam2.ac.in/aic20_sp11/preview (HTML and CSS)
- <https://www.coursera.org/learn/html-css-javascript-for-web-developers#syllabus> (HTML, CSS, and JavaScript for Web Developers)
- <https://www.classcentral.com/course/html-css-javascript-for-web-developers-4270> (HTML, CSS, and JavaScript for Web Developers)
- <https://www.classcentral.com/course/duke-programming-web-4256>
- <https://www.coursera.org/learn/duke-programming-web> (Programming Foundations with JavaScript HTML and CSS)

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Suggested Continuous Evaluation Methods: Maximum Marks:100		
Continuous Comprehensive Evaluation (CCE): 30 marks External Exam (EE) 70 Marks		
Internal Assessment: आंतरिक मूल्यांकन Continuous Comprehensive Evaluation (CCE): 30 सतत व्यापक मूल्यांकन	Class Text Assignment / Presentation क्लास टेस्ट असाइनमेंट / प्रस्तुतीकरण	Total = 30
External Assessment: External Exam Section: 70 Time: 02.00 Hours	Section (A): Very Short Questions (50 word Each) अति लघु प्रश्न Section (B): Short Questions (200 word Each) लघु प्रश्न Section (C): Long Questions (500 word Each) दीर्घ उत्तरीय प्रश्न	05x02 = 10 04x05 = 20 04x10 = 40 Total = 70

Suggestive List of Practicals (HTML)

1. Design a home page which displays information about your college department using headings, HTML entities and paragraphs.
2. Implement different type of list tags in the college department homepage.
3. Create a webpage for any clinic using marquee and HTML formatting tags.
4. Create 3 Hyperlinks in home page connecting it to 3 different pages.
5. Create 3 hyperlinks in a page, which jumps to 3 different headings on same page.
6. Insert image(s) and iframe in a webpage.
7. Design a page with image of block diagram of computer, mapping each component as area with specific co-ordinates which when clicked may give their detail.

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8. Create a web page having two frames, Frame 1 containing links and another with contents of the link. When link is clicked appropriate contents should be displayed on Frame 2.
9. Design a timetable and display it in tabular format.
10. Demonstrate difference between "get" and "post" method of form tag in a form with name and password text fields.
11. Design an admission form for any course in your college with text, password fields, drop-down list, check-boxes, radio buttons, submit and reset button etc.
12. Create a website for online book store with Home, Login, Catalogue, Registration page with links to all these pages in a menu on top of every page. Embed heading, paragraph, images, video, iframe, form controls, table, list in this website.
13. Write a CSS style specification rule that would make all unordered lists (tags) have square bullets and a purple background.
14. Create a HTML form with the use of cascading style sheets.
15. Design a web page of your Home town with a attractive background color, text color, an image, font face by using Inline CSS formatting.
16. Create a catalog for an online shopping company that sells music records using style sheets.
17. Create a sample code to illustrate the Inline style sheet for your web page.
18. Create a sample code to illustrate the External style sheet for your web page
19. Design a web page by using different CSS border styles.
20. Demonstrate the use of CSS Box Model.
21. Change the color of all elements with the class "colortext" to "Blue". Set different margins for all four sides of a paragraph.

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Suggestive List of Practicals (JavaScript)

1. Write a JavaScript program to display the current day and time .
2. Write a JavaScript program to remove a character at the specified position of a given string and return the new string.
3. Write a JavaScript program to get the current date.
4. Write a JavaScript program to find the area of a triangle.
5. Write a JavaScript program to determine whether a given year is a leap year.
6. Write a JavaScript program to calculate multiplication and division of two numbers.
7. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.
8. Write a JavaScript program to check whether a given positive number is a multiple of 3.
9. Write a JavaScript program to change the case of a string.(i.e upper case to lower case and vice-versa).
10. Write a JavaScript program to compute the sum of elements of given array of integers.
11. Develop and demonstrate a HTML file that includes JavaScript script for taking a number n as input using prompt and display first n Fibonacci numbers in a paragraph.
12. Develop and demonstrate a HTML file that includes JavaScript script for taking full name in a text field and display first, middle, last name in 3 different labels. Middle and last name may be optional, thus message like "NA" should be displayed in corresponding labels. If input contains 2 words, then they should be considered as first and last name.
13. Develop and demonstrate a HTML file that includes JavaScript script for switching an image source for a image on click of "change" and "original" button.
14. Design HTML form for keeping student record, apply JavaScript validation in it for restriction of mandatory fields, numeric field, email-address field, specific value in a field etc.
15. Write a JavaScript code that displays text "Bigger Text" with increasing font size in the interval of 10ms in red color, when the font size reaches 50pt it displays "Smaller Text" in green color. Then the font size should decrease to 5pt and then stop.

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Suggested Continuous Evaluation Methods:

Maximum Marks :100		
Internal Assessment :	Class Interaction /Quiz Attendance Assignments (Charts/ Model Seminar / Rural Service/ Technology Dissemination/ Report of Excursion/ Lab Visits/ Survey / Industrial visit)	Total 30
External Assessment :	Viva Voce on Practical Practical Record File Table work / Experiments	Total 70
Any remarks/ suggestions:		

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SYLLABUS

SESSION- 2022-23

UG II YEAR

SUBJECT: VOCATIONAL

Web Development using PHP & MySQL

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(Session 2022-23)

(NEP-2020)

Class / कक्षा	UG
Year / वर्ष	II Year
Course Title / पाठ्यक्रम का शीर्षक	Web Development using PHP & MySQL
Course Type / पाठ्यक्रम का प्रकार	Vocational
Credit Value/ क्रेडिट मान	4
Max. Mark/ अधिकतम अंक	Max. Marks: 70+30
	Min. Marks: 35

Course Learning Outcomes(CLO)

After completion of course, students will be able to -

- Discover how the web works, what makes web sites work.
- Implement simple and impressive design techniques, from basics to advanced so as to focus on oriented and user centric designs.
- Use Server Side Scripting.
- Implement concept of data persistence.
- Apply skills to program logic using PHP and handle data using MySQL.
- Develop dynamic websites using PHP & MySQL.

Expected Job Role / career opportunities

Job Role - Web Designer / Front End & Back End Developer/ Creative Ad Designer

Job Description – PHP developers write server-side web applications using Hypertext Preprocessor (PHP) scripting languages. They are tasked with developing and coding back-end components and connecting applications to other web services. PHP developers also assist front-end developers to ensure their work integrates into the application.

Career Opportunities –

Typical employers of web developers and designers are –

- Software companies
- IT consultancies
- Specialist web design companies
- Large corporate organisations
- Any organisation that uses computer systems
- Self-employment/freelance work is often possible for individuals with appropriate experience.

Vacancies are advertised online, by career services and by recruitment agencies.



Particular

Unit-I	<p>BASICS OF PHP: Introduction to PHP, PHP features, installation of XAMPP/WAMP, Benefits of using PHP MYSQL, Server Client Environment, Web Browser, Web Server Installation & Configuration Files.</p> <p>OOPs with PHP, language basics, syntax, comments, variables, constants and data types, expressions and operators, flow control statements, looping structures, Arrays Including html code in PHP, Embedding PHP in web pages.</p>
Unit-II	<p>FUNCTIONS & STRINGS in PHP: Defining a function, Calling a function, variable scope, function parameters, return values, User Defined Function, System Defined Function, Parameterized Function, Date & Time Function, Hash Function, Mail Function, predefined functions.</p> <p>Strings: Creating & accessing string, searching and replacing strings, encoding and escaping, comparing strings, formatting strings, regular expression.</p>
Unit-III	<p>Data & File Handling: PHP Forms: \$_GET, \$_POST, \$_REQUEST, \$_FILES, \$_SERVER, \$GLOBALS, \$_ENV, input/output controls, validation, Cookies and Sessions.</p> <p>File Handling: File and directory, open, close, read, write, append, delete, uploading and downloading files. File exists, File Size, Rename. Reading and display all/selected files present in a directory.</p>
Unit-IV	<p>MySQL an Overview: Introduction, What is a Database, Understanding an RDBMS, Tables, Record & Fields, SQL Language.</p> <p>Working with phpmyadmin: Creating and using a database, Selecting a database, creating/dropping a table, loading data into a table, Retrieving information from a table, selecting all data, selecting particular rows, selecting particular columns, writing queries, sorting, date, calculations, working with NULL values, pattern matching, counting rows, using more than one tables, using table and column aliases.</p>
Unit-V	<p>MySQL DATABASES IN PHP: Introduction, connecting to a MySQL database, querying the database, Retrieving and displaying the results, modifying data and deleting data through front end. Designing applications using PHP & MySQL.</p>
Unit-VI	<p>Building a Content Management System(CMS): Blueprinting the application, Building the CMS database, Establishing your work area, Creating and styling the first page, Making page assets reusable, Connecting the application to the database.</p>

Suggestion Books:-

1	Head First PHP & MySQL,	Lynn Beighley & Michael Morrison, O'Reilly	
2	PHP: A Beginner's Guide,	Vikram Vaswani	McGraw-Hill Edition
3	Learning PHP, MySQL, JavaScript, & CSS: A Step-by-Step Guide to Creating Dynamic Websites,	Robin Nixon, O'Reilly	
4	PHP and MySQL Web Development,	Luke Welling, Addison-Wesley	
5	The Joy of PHP	Alan Forbes	BeakCheck LLC





Suggested equivalent online courses: e-reading:

1. https://onlinecourses.swayam2.ac.in/aic20_sp32/preview
2. <https://www.udemy.com/course/php-mysql-tutorial/>
3. <https://www.udemy.com/course/php-mysql-course-for-absolute-beginners/>
4. <https://www.simplilearn.com/learn-php-basics-free-course-skillup>
5. <https://www.coursera.org/learn/web-applications-php>

Scheme of Marks for Vocational

Suggested Continuous Evaluation Methods: Maximum Marks:100		
Continuous Comprehensive Evaluation (CCE): 30 marks External Exam (EE) 70 Marks		
Internal Assessment: आंतरिक मूल्यांकन Continuous Comprehensive Evaluation (CCE): 30 सतत व्यापक मूल्यांकन	Class Text Assignment / Presentation क्लास टेस्ट असाइनमेंट / प्रस्तुतीकरण	Total = 30
External Assessment: External Exam Section: 70 Time: 02.00 Hours	Section (A): Very Short Questions (50 word Each) अति लघु प्र न Section (B): Short Questions (200 word Each) लघु प्र न Section (C): Long Questions (500 word Each) दीर्घ उत्तरीय प्र न	05x02 = 10 04x05 = 20 04x10 = 40 Total = 70

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Practical

1. Create a simple HTML form and accept the user name and display the name through PHP echo statement.
2. Write a PHP script to demonstrate arithmetic operators, comparison operator, and logical operator.
3. Write PHP Script to input marks, generate result and display grade.
4. Write PHP Script for addition of two 2x2 matrices.
5. Write PHP script to obtain factorial of a number using function
6. Write PHP script to demonstrate string, date and math function.
7. Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.
8. Write two different PHP script to demonstrate passing variables through a URL.
9. Write two different PHP script to demonstrate passing variables with sessions.
10. Write PHP script to demonstrate passing variables with cookies.
11. Write a program to keep track of how many times a visitor has loaded the page.
12. Write PHP script to demonstrate exceptional handling.
13. Write a PHP script to connect MySQL server from your website.
14. Create EMP table with emp_no, emp_name, designation and salary. Write a program to read employee information from EMP table and display all this information in php page.
15. Create customer table in mysql with cust_no, cust_name, item_purchased, and mob_no, insert 10 records into it.
16. Write a program to read customer information from customer table and display all these information in table format on php page.
17. Design a web form in php to input values for the customer record and insert the record in customer table as a tuple.
18. Design an "update" web form to edit name of customer to "Bob" with cust_no =1
19. Design an "delete" web form to delete record with cust_no=3.
20. Create a dynamic web site using PHP and MySQL.

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Suggested Continuous Evaluation Methods:

Maximum Marks :100		
Internal Assessment :	Class Interaction /Quiz Attendance Assignments (Charts/ Model Seminar / Rural Service/ Technology Dissemination/ Report of Excursion/ Lab Visits/ Survey / Industrial visit)	Total 30
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Any remarks/ suggestions:		

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