



GUJARAT TECHNOLOGICAL UNIVERSITY
Syllabus for Integrated M.Sc. (Computer Science)
(With Specialization: AI and Data Science/IoT/ Cyber Security)

**With effective
from academic
year 2022-23**

Subject Code: 1340304
Semester- IV
Subject Name: Introduction to Web Designing

Teaching and Examination Scheme

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE(E)	PA (M)	PA (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Teaching Hours	Module Weightage (%)
1	Introduction to WEB Basics of WWW, HTTP protocol, Client Server architecture, Introduction to web server installation and configuration	4	10%
2	Web Design Concepts of effective web design, Web design issues including Browser, Bandwidth and Cache, Display resolution, Look and Feel of the Website, Page Layout and linking, User centric design, Sitemap, Planning and publishing website, Designing effective navigation	4	15%
3	Basics of HTML and CSS Structure of HTML page, HTML tags for data formatting, tables, links, images, meta tags, frames, html form tags, media, APIs, HTML5 tags and validation. Need for CSS, Syntax and structure, CSS rules for Backgrounds, Colors and properties, Manipulating texts, Fonts, borders and boxes, Margins, Padding Lists, CSS Positioning. Animations, Tool-Tips, Style images, Variables, Media Queries, Wildcard Selectors (*, ^ and \$) in CSS, Working with Gradients, Pseudo Class, Pseudo elements, basic of frameworks like Bootstrap	8	15%
4	Client Side Scripting using JavaScript Syntax of JavaScript, Execution of JavaScript, Internal, Embedded and External Javascript, JavaScript : variables, arrays, functions, conditions, loops, Pop up boxes, JavaScript objects and DOM, JavaScript inbuilt functions, JavaScript validations and Regular expressions, Event handling with JavaScript, Callbacks in Javascript, Function as arguments in JavaScript, Introduction to JSON	10	20%



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5	Server Side Programming with PHP Difference between Client side and Server side scripting, Structure of PHP page, PHP Syntax: variables, decision and looping with examples, PHP and HTML, Arrays and Functions, String, Form processing, File uploads, Dates and time zone, Working with Regular Expressions, Exception Handling , Basic concepts of Session and State, State management using query string, hidden form controls, Cookies, Session variables	10	25%
6	Database programming with PHP and MySQL Basic MySQL commands, PHP functions for database connectivity, Implementation of CRUD operations using PHP, Prepared Statement and stored procedure execution in PHP	4	15%

Reference Books:

- 1 Web Technology, Moseley and Savaliya, Wiley, India.
- 2 HTML 5 Black Book 2Ed, Kogent Learning Solutions Inc, Dreamtech.
- 3 Web Design, Joel Sklar, Cengage Learning.
- 4 Learning PHP, MySQL, JavaScript, CSS & HTML5, 3rd Edition, Robin Nixon, O'Reilly.
- 5 A Step-by-Step Guide to Creating Dynamic Websites, Robin Nixon Publisher: O'Reilly Media.
- 6 Internet and World Wide Web How to program, P.J. Deitel & H.M. Deitel, Pearson.
- 7 JavaScript for impatient programmers, Dr. Axel Rauschmayer.
- 8 PHP: The Complete Reference, Steven Holzner, McGrawhill.

Course Outcome:

After learning the course, the students should be able to:

No.	CO statement
CO-1	Use the various HTML tags with appropriate styles to display the various types of contents effectively.
CO-2	Develop the dynamic web pages using HTML, CSS and JavaScript applying web design principles to make pages effective.
CO-3	Develop the server side PHP scripts using various features for creating customized web services.
CO-4	Write the server side scripts for designing web based services with database connectivity
CO-5	Develop a web application using advanced web programming features including AJAX and JQuery using concepts of Web API.