SEMESTER-II

St. Xavier's College (Autonomous), Ahmedabad

Syllabus of Semester – II of the following departments under Faculty of Computer Science based on Undergraduate Curriculum Framework to be implemented from the Academic Year 2025-26.

DEPARTMENT OF COMPUTER SCIENCE

BCA (Hons.)
Category – IV

DEPARTMENT OF COMPUTER SCIENCE

Minor Course – 1: Web-Designing with DHTML (Theory) **(BCA-2101)**

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credit Distribution of The Course			Eligibility Criteria	Pre-requisite(s) of the Course (if any)
	Lecture	Tutorial	Practical / Practice		
Web-Designing with DHTML (Theory)	2	0	2	10 + 2 from a recognized board in any stream	Nil

Course Objective
This course is aimed to make students familiar with dynamic web page creation tools like cascading style sheet, JavaScript and jQuery. The student would be able to develop dynamic webpage/website using DHTML.

Course Outcome
- Understand the basic as well as advance features of CSS.
- Acquire the knowledge to develop the dynamic webpages using JavaScript.
- Learn the fundamentals of jQuery.

UNIT 1:
Introduction to CSS: Understanding the concepts of CSS - Advantages and disadvantages - **CSS syntax** - Grouping selectors and rulers - Using the class selectors - Using the ID selectors - Comparing ID and classes selectors - Using CSS comments
Types of Style sheets: External – Internal – Inline
CSS properties and text attributes: Color – Alignment – Decoration – Transformation – Indent -

Letter spacing and word spacing - White - pace - Line-height – Direction - Unicode-bidi
CSS Padding: Using padding properties - Setting padding for all sides - Setting padding for each side - List properties (list-style-images, list- style-position, list style - type, list-style) - CSS positioning(relative, absolute, fixed and Z-index) - CSS properties and table attributes **Advance CSS:** Css rounded corners - Border images - Css gradient - Css shadow - Css font & Text effects - Css 2D & 3D Transform – CSS transition & Animations

UNIT 2:
 JavaScript Introduction: Understanding JavaScript - About Dynamic HTML - Selecting a development environment for JavaScript - HTML and JavaScript
 Advanced JavaScript: Element of JavaScript – Variables – Operators - Flow control statement – Arrays – Functions - Event handling - Browser and JavaScript - Web page and JavaScript - validating User forms
 Introduction to jquery: About jquery
Using jquery: The two jquery downloads - Including jquery (Using script) - Basic jquery syntax - Connecting jquery to the load event

Textbook:
   1. A Complete Guide to Internet and Web Programming (Edition-2010)
          Publisher: Dream Tech Press.
          By Deven N. ShahPublisher: DreamTech Press (Chapter-
           3, 4 for unit 1,2)
   2. Javascript 2nd Edition Step by step
          Publisher: Microsoft Corporation by: O'Reilly Media, Inc By Steve
          suehring (Chapter-22 for unit 3)

Reference Books:
   1. Dynamic HTML & XML
          Publisher: Computer world
          By: vimal pandya, Manali brahmbhatt, Maulik patel
   2. DHTML and CSS Advanced(First Edition-2006)
          Publisher: Pearson Education. By Jason
          cranford Teaue
   3. Java Script Indian Edition(First Edition-2008)
          Publisher: CENGAGE Learning By
          Gosselin
   4. HTML 5, Javascript and jQuery 24-Hour Trainer
          Publisher: Wiley Publication
          By Dane Cameron

Program List

UNIT 1:

1. Write HTML program which contains internal cascaded style sheet for p, h2, h3, body and font attribute.
2. Write HTML program which contains inline cascaded style sheet for text attributes.
3. Write HTML program which contains external cascaded style sheet for List properties user defined Classes and Id.
4. Write HTML program which contains all the css positioning properties through internal css using class selector.
5. Write HTML program using clip property & z-index property through external css.
6. Write HTML program which contains cascaded style sheet with margin attributes of style sheet.
7. Write HTML program which contains internal style sheet with background & border attributes of style sheet.
8. Write HTML program which contains external style sheet with Css font & css text effects
9. Write HTML program which contains cascaded style sheet with Css 2D & 3D Transform.
10. Write HTML program which contains external css using CSS transition & animations.

UNIT 2:

11. Write a Javascript to print your name and surname on screen.
12. Write a JavaScript program to calculate area of circle.(3.14*r*r)
13. Write a javascript to find the grade from student result using if condition.
14. Create JavaScript program to create mathematical calculator. (functionality +,*,-,/)
15. Write JavaScript to demonstrate the use of different dialogue boxes. For example: write messages good morning, good bye etc, take value from alert, confirmation for any operation.
16. Write a JavaScript program to validate a form which consist of name, Age, address, hobby(checkbox), gender(radio button), email.
17. Write a simple jquery program to print alert message hello world.
18. Test if jQuery is loaded.
19. Write a jquery program to hide the paragraph using class.
20. Write a jquery program to hide the division block using id.

To enhance programming skills

- Write a javascript to find sum of first 7 numbers in series.
- Write a JavaScript program to find factorial of a number.
- Write a javascript to find reverse of given string.
- Write the javascript program to print the reverse number from 10 to 1 using dowhile loop.
- Create JavaScript program which have list of color buttons, if user moves the mouse over to any color button that color will set to the background of document.
- Small Project: Select the topic for website designing and design five attractive web pages using all css properties also use java script for login , registration form ect.
- Scroll to the top of the page with jQuery
- Disable right click menu in html page using jquery
- Write a jquery for Limit character input in the text area including count
- Write a jquery to Display a message when the context menu event is triggered on the paragraph elements.
- Write a Write a jquery program to hide link provided inside division section in program using selecting the element by its Hierarchy.
- Write a Write a jquery program to change the color of second paragraph. (provide 3 paragraphs in program)
- Write a Write a jquery program to change the height of the image using selecting the element

by its attribute.
- Create the table for "IPL match". Add minimum five records for player name, score, age, player type. if score greater than 50 than display that records in red color font using jQuery.
- Write the jquery to demonstrate to change the text using text(), Val(), html() .
- Write the jquery to demonstrate the click() dblclick() and keypress() events.