Guidelines of DSE Semester V/ Generic Elective Semester IV (NEP UGCF 2022)

DSE/GE4b: Introduction to Web Programming (Effective from Academic Year 2024 – 25)

S. No.	Unit Name	Chapters	References	Hours
1.	Introduction	1 (Pg. HTML 1 – HTML 21) (Introduction, Exploring the Internet, Planning a website)	[1]	5
2.	HTML	1 (Pg. HTML 22 – HTML 25 (except using web Authoring tools), HTML 30 - HTML 37) 3 (Pg. HTML 83 – HTML 94, HTML 98 – HTML 122) (Introduction, Adding Images to a website, Exploring Div Elements, Adding Links to a webpage, Adding Lists) 8 (Pg. HTML 402 – HTML 416, HTML 423 – HTML 438) (Discovering Tables & Table style, Creating Webpage Forms)	[1]	12
3.	Cascading Style Sheet (CSS)	4 (Pg. HTML 143 – HTML 185) (Introduction, Using CSS, Inline Elements, Block Elements, External CSS, Linking CSS, Webpage layout, CSS for Structural Elements, Id Selectors, Class attributes)	[1]	8
4.	JavaScript	14, 15 (Pg. 343 – 350, 353(if statement), 356 (? operator), 357 – 361), 16 (Pg. 363 – 366), 17 (Pg. 385 – 390)	[2]	10
		9 (Pg.150 – 155, 156 – 157) (Java Scripts Events Handlers: onBlur, onClick, OnDblClick, onFocus, onKeyPress, onMouseOut, onMouseOver, onSelect, onSubmit)	[3]	
5.	jQuery and JSON	21 (Pg. 512 – 526, 530 – 538 before animation, 542 – 544)	[2]	8
		8 (Pg. 376 – 377)	[4]	2

Textbooks:

- 1. Minnick, J. Responsible *Web Design with HTML5 and CSS*, 9th edition (Hard Copy), Cengage Learning, 2017.
- 2. Nixon, R. Learning PHP, MySQL & JavaScript with jQuery, CSS and HTML5, 6th Edition, O'Rielly, 2021.
- 3. Ivan Bayross, Web Enabled Commercial Application Development Using Html, Dhtml, Javascript, Perl CGI, 4th Revised Edition, BPB Publications, 2010 (Reprint 2022).
- 4. Duckett, J. JavaScript and JQuery: Interactive Front-End Web Development, Wiley, 2014.

Practical List

HTML

- 1. Create an HTML document with following formatting Bold, Italics, Underline, Colors, Headings, Title, Font and Font Width, Background, Paragraph, Line Breaks, Horizontal Line, marquee text.
- 2. Create an HTML document with Ordered and Unordered lists.
- 3. Create an HTML document demonstrating use of images in webpages (including images as logos, cell data in a table, background of a table, clickable icons, etc)
- 4. Create an HTML document to demonstrate Internal and External linking.
- 5. Create an HTML to display the following table:

Schedule Day Topic Start Time End Time Introduction to HTML Monday 8:00 AM 5:00 PM Important HTML Tags 8:00 AM 11:00 AM CSS-1 Tuesday 11:00 AM 2:00 PM 2:00 PM 5:00 PM JavaScript-1 8:00 AM Wednesday 12 Noon JavaScript-2 8:00 AM 12 Noon JOuerv Thursday 1:00 PM 3:00 PM Valedictory

Table Example

- 6. Create an HTML page demonstrating the following semantic tags:
 - a. Header
 - b. Nav
 - c. Main
 - d. Section
 - e. Footer

- f. Details
- g. Summary
- h. Figure
- i. Figure caption
- 7. Create a student registration form using HTML which has the following controls:
 - a. Text Box
 - b. Text Area
 - c. Dropdown box

- d. Option/radio buttons
- e. Check boxes
- f. Reset and Submit button

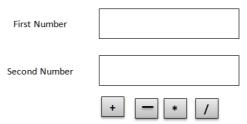
On pressing the Submit button, a message "Form submitted" should be displayed.

CSS

- 1. Create a webpage for your department with a drop-down navigation menu for faculty, courses, activities, etc. Implement the webpage using styles, rules, selectors, ID, class.
- 2. Add appropriate CSS code to change the text, list, div element and table properties of the HTML questions above.

Javacript

- 1. Write a Javascript code to accept a number from the user through the prompt and print its multiplication table.
- 2. Create a HTML form having two text boxes and 4 buttons (as shown below).



Write a Javascript code to implement respective operation when a user clicks on a button. The result of the operation is to be displayed on an alert window.

- 3. Write a Javascript code to change the background color of a text box when text box gets focus.
- 4. Write a Javascript code for Q7 (of HTML above) to input and validate all data. Create functions to perform validation of each element, for example:
 - a. Roll number is a 7-digit numeric value.
 - b. Name should be an alphabetical value (String).
 - c. Non-empty fields like DOB.

jQuery and JSON

- 1. Change text color and contents using button click events using jQuery.
- 2. Select elements using ID, class, elements name, attribute name.
- 3. Write a JOuery function to test whether a date is a weekend.
- 4. Demonstrate various events: blur, change, focus, cick, dblClick, submit.
- 5. Write a jQuery code that demonstrates the mouseOver and mouseOut event.
 - a. The web page should have a hyperlink labeled "It shows the mouse events" and linked to your college website.
 - b. When the mouse is hovered over the link the background color of webpage changes to green and link text is changed to "I'm green now".
 - c. When the mouse is taken away from the link the background color of webpage changes to red and the link text changes to "I'm red now".