Fall 2020

NEW YORK CITY COLLEGE OF TECHNOLOGY/CUNY
Computer Systems Technology Department

Course: CST2309 – E350 Web Programming I
(2 class hours, 2 lab hours, 3 credits)

INSTRUCTOR:	Deodat P. Sharma	OFFICE: by appointment
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OFFICE HOURS:	TBA	

Course Description:
This course focuses on how to design and maintain interactive and dynamic Web sites using HTML, Cascading Style Sheets (CSS) and client-side scripting with JavaScript. The goal is to develop dynamic, effective, and pleasing Web sites. The students will learn JavaScript programming, the JavaScript Data Object Model (DOM), JavaScript event handlers, and how to integrate JavaScript programs in a HTML document. Students will apply this knowledge to create Web sites that include pop-up windows and scrolling messages, as well as to validate forms and enhance the Web pages with the use of images and form objects.

Course Objectives:
This course is an introduction to creating web pages using HTML and JavaScript. This course will allow students to gather information, design, and upload their web pages to a web server. The student will get an understanding of what is client-side scripting. An emphasis will be placed on creating forms using the various text fields such as checkbox, option box, text box, password, and doing form validation.

Specific objectives for the course are:

To understand the structure of a web page using HTML5.
To understand how to design a web page.
To understand and implement web page form validation.
To understand and employ Cascading Style Sheets
To understand and use JavaScript in creating webpages.
To create webpages utilizing the skills presented in class.

General Education Outcomes:

- SKILLS/Inquiry/Analysis: Student will employ logical reasoning.
- SKILLS/Communication: Students will communicate by written, oral, and visual venue.
- Values, Ethics, Relationships: Students will work within teams to build consensus, respect and foster creative thinking. Students will employ ethical responsibility in creating webpages.

- Information Literacies: Gather, interpret, evaluate, and apply information from a variety of resources.

Prerequisite:
CST1101 – Problem Solving with Computer Programming

Required Textbook:
Introduction to Web Development Using HTML 5, Kris Jamsa, Jones and Bartlett Publisher, ISBN: 978-1-4496-8654-3

Text: HTML and JavaScript BASICS 4th Ed., by Barksdale & Turner, Cengage Technology ISBN: 978-0-538-74235-1

Students are required to have a USB storage device for class projects.

Attendance:
Attendance is expected at every class meeting. College policy sets the maximum number of permissible absences at 10% of the number of class meetings scheduled for the semester. If the class is meeting two times per week, you are permitted to be absent a total of three class sessions; if the class meets only once per week, you are permitted to miss one and one-half of the class meetings.

Academic Integrity Policy:
Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

Grading Procedure

Attendance	5
Participation	5
Homework	10
Exam 1	5
Exam 2	10
Exam 3	15
Midterm Project	15
Final Project	20
Final Exam	15

Grading Policy:

Letter Grade	**A**	**A-**	**B+**	**B**	**B-**	**C+**	**C**	**D**	**F**
Numeric Grade	**93-100**	**90-92.9**	**87-89.9**	**83-86.9**	**80-82.9**	**77-79.9**	**70-76.9**	**60-69.9**	**59 and below**

Projects:

In lieu of a written exam for the midterm and final, students will be required to do ***two major projects***. The first project is the midterm. Students will use all the concepts discussed in the first half of the term to create a restaurant menu with three (3) linking pages. The students will be required to use their creativity and give an oral presentation of their work to the class.

In the final project, students will create a gym website with a required membership form and form validation using HTML 5, JavaScript and Cascade Style Sheets. Students will use their creativity in creating the gym website. **The final project will consist of the following three pages: 1) an introduction page, 2) middle page will be the student's own creativity, and 3) the last page is a form with form validation.**

The website will include the numerous concepts presented throughout the course. Each student will present his or her work to the class and explain the programming.

Course Outline:

Week	**Date**	**Topic**	**Chapter(s)**
1	8/28	Getting Started with HTML	1
2	9/4	Integrating Graphics	2
3	9/11	Using Hyperlinks	3
4	9/18	Integrating Audio and Video	18
5	9/25	Links and Tables	4, 5
6	10/2	Forms Exam 1: HTML	
7	10/9	Introduction to CSS	7
8	10/16	Styling with CSS	7
9	10/23	Advanced CSS and Creating Forms	8
10	10/30	Exam 2: CSS Midterm Project	
11	11/6	Introduction to JavaScript	6
12	11/13	Using images with JavaScript	7
13	11/20	Creating Forms and Form Validation	8
14	11/27	Creating Forms and Form Validation	8

15	12/4	Exam 3: JavaScript Final Project	
16	12/11	Final Project	
17	12/18	Final Exam	

Assessment Criteria:

For the successful completion of this course a student should be able to:	Evaluation methods and criteria
1. Know the basic structure of HTML	1. Students will use a standard text editor, either Notepad or Notepad++ (open source), to create basic Web pages.
2. Demonstrate an understanding on how to format Web pages	2. Student will write basic HTML code with tags that format the way text is displayed in a browser and tags that create hypertext links.
3. Learn how to work with images and tables	3. Students will insert images and tables into Web pages and manipulate size, style, and color of fonts.
4. Demonstrate an understanding of design techniques	4. Students will create Web pages with different navigation systems working together.
5. Know the basics of JavaScript	5. Students will create Web page containing JavaScript code containing object-oriented elements such as operators, objects, and methods.
6. Work with images using JavaScript	6. Students will use graphic images in conjunction with JavaScript events and functions to add visual effects to a Web page. These effects include image rollovers, hyperlink rollovers, cycling ad banners, random image displays, and electronic slide shows.
7. Learn how to create and do form validation with JavaScript	7. Students will build on the introduction to form presented in chapter 3. Students will demonstrate how JavaScript can be used to enhance the functionality of HTML forms. Students will create Web pages containing forms and will employ JavaScript to validate user input data.

General Education Outcomes and Assessment:

Learning Outcomes	Assessment Method
SKILLS/Inquiry/Analysis: Students will employ reasoning and logical thinking.	Define a given problem using algorithms thorough classwork, homework and tests. Based on the given assignments, students will plan the layout of the necessary elements needed to create their websites. Using JavaScript, students will identify the coding paradigms through classwork, lab assignments, and exams.
SKILLS/Communication: Students will communicate by written, oral, and visual venue.	Students will give oral presentations of their websites. A class discussion will follow the exercises.
Values, Ethics, Relationships: Develop team building, respect for diversity.	Projects will be done in teams building respect for diversity and fostering creativity.