



COURSE SYLLABUS
COMPUTER SCIENCE 3: Client-Side Web Development
S.Y. 2021 – 2022

COURSE DESCRIPTION

The course employs output-based learning and focuses on client-side web development using HTML, CSS and JavaScript. It enables the students to produce aesthetically pleasing websites, adhering to the current web standards. The course motivates students to collaborate and participate in values social issues and learn the value of teamwork to accomplish various projects.

COURSE OBJECTIVES

At the end of the school year, the students should be able to:

1. Promote curiosity and independent exploration of WWW resources.
2. Appreciate and critique a web page/site.
3. Use basic HTML tags and attributes.
4. Manipulate the appearance of web page elements through Cascading Style Sheets.
5. Perform the different stages in the development of web sites.
6. Use a variety of techniques to embed multimedia into a Web page.
7. Understand and use the built-in Script objects for mathematical calculations, string processing, date, and time manipulation.
8. Apply basic programming algorithms using a web scripting language.
9. Create web pages suitable for the client’s needs and specifications and adhere to web standards.

COURSE TOPICS

FIRST QUARTER		SECOND QUARTER	
I.	Introduction to Web Development A. How the Internet works	VI.	What’s new in HTML5? A. Layout tags (header, footer, nav) B. Multimedia tags (video, audio)
II.	Basic HTML A. doctype, html, head, title, body B. div, span, ul, ol, h1 to h6 C. img, a, br, p, strong, em, del D. tag-specific attributes	VII.	Advanced CSS A. Text Links (link, visited, hover, active) B. Events in CSS (onmouseover, onclick, onmouseout) C. Image sprite D. What’s new in CSS3 (selectors, background, border, transform)
III.	Table A. table, tr, td, th, colgroup, col B. attributes specific to tables		
IV.	Best practices for web design & layout A. Color B. Wireframing		
V.	Introduction to Cascading Style Sheets A. Selectors (tag, id, class) B. Types (in-line, internal, external) C. Basic Syntax D. Properties E. All properties for font, text, background, and box model F. float, position, width, height, top, bottom, left, right		
THIRD QUARTER		FOURTH QUARTER	
VIII.	JavaScript Overview A. Syntax (script elements, rules) B. Variable declarations and data types (primitive)	XII.	JavaScript Forms for an Alternative User Interface and Interaction A. HTML Form Tags (form, input, buttons, submit)



<p>C. Operations (logical, arithmetic, comparison, assignments) D. Basic Statements (I/O statements, assignment, and conditional)</p> <p>IX. JavaScript Functions E. Declaring and calling functions F. Event Handlers G. Mouse Tracking H. Processing Function Output</p> <p>X. Commonly used JavaScript Objects I. Math and String functions J. Date and Number Object</p> <p>XI. Control Statements K. If, if...else, if-else-if, switch</p>	<p>B. Form Handling (onSubmit, onChange) C. Form Properties (value, disabled, selected, hidden)</p> <p>XIII. More Control Structure A. While, do-while, for</p> <p>XIV. Arrays A. Declaring arrays B. Using arrays (integer index, associative arrays) C. Sort and Search (traversing Arrays using loops)</p> <p>XV. User Validation A. Data Validation</p> <p>XVI. Session Handling A. Cookies B. Local Storage</p>
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GRADING SYSTEM

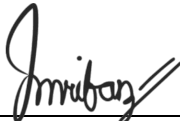


Long / Summative Exam	35%
Alternative Assessments	40%
Formative Assessments	25%
40% Compliance, 60% score	
TOTAL	100%

REFERENCES

Textbook:
JavaScript (3rd Ed.)Web Warrior Series
Robbins, J. N. (2007). Learning Web Design. (3rd Ed.). O'Reilly Series
Powell, T. (2010). HTML and CSS: The Complete Reference. (5th Ed.). McGraw-Hill
Robson, E. & Freeman, E. (2010). Head First HTML and CSS. O'Reilly Media
Castro, E. &Hyslop, B. (2011).HTML5 and CSS. (7th Ed.)
Granell, C. The Essential Guide to CSS and HTML Web Design.

COURSE MATERIALS

1. Google Workspace for Education (@clc.edu.ph) email account

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