Passaic County Community College
Academic Year: 2021-2022
Master Syllabus

Department Chair: Merille Siegel

Course Code: CIS 271 **Course Title:** Web Client Development

Department: CIS/Engineering

Course Description:

This course introduces students to client-side, web application development. The emphasis is on using a variety of web technologies. A fully functional client-side application will be developed using HTML5, XML, and scripting (e.g., JavaScript). The web application also requires the student to utilize publicly available web resources and services. Offered nights in Fall only.

Prerequisites: CIS 170 (GD 170) and CIS 108

Credits: 3 **Lecture Hours:** 3 **Lab/Studio Hours:** 0 **Clinical/Fieldwork Hours:** 0

Required Textbook/Materials: zyBook – CIS 271: Web Application Development I

1. Sign in or create an account at learn.zybooks.com
2. Enter appropriate zybook code (provided by your professor).
3. Subscribe (This can be done through the website, or can be purchased from the book store)

Note: *A subscription is $58. Subscriptions will last until 2 weeks after the semester ends.*

Additional Time and Supplemental Requirements:
Based on a 15 week semester, students are expected to complete two minutes of assigned work outside of class. For this class 6 hours of additional time are expected.

COVID-19:
On-Campus Requirements during COVID-19*:* Passaic County Community College has created a thorough plan for maintaining a healthy environment while on campus during the COVID-19 Pandemic. You are required to wear your mask, maintain safe social distances and wash your hands frequently. Also, remember to use hand sanitizer stations, and do not gather in groups. Maintaining a healthy campus will require all of us to do our part. If we take these simple precautions, we can have a safe and productive semester.

Course Learning Outcomes:

Upon completion of this course, students will be able to:

1. Explain the basic terminology used by web developers.
2. Apply programming skills utilizing a scripting language.
3. Apply publicly available web resources and services to a website.
4. Implement a website using dynamic HTML, HTML5 and scripting languages.

General Education Outcomes: This course is not a general education course.

Grading Standards:

Component	Percentage
Class Practices & Attendance	10%
Quizzes	20%
Assignments	30%
Website Project	30%
Project Presentation	10%

Course Content:

(Schedule and suggested topics, readings, and assignments subject to change based on instructor and instructional resource)

Topic	Learning Objectives After the class, you will be able to:
HTML5 Focus	1. Define and identify basic HTML terminology 2. Explain the purpose of common HTML tags 3. Identify good practices involving accessibility 4. Plan a website 5. Build an accessible static website
CSS Focus	1. Define and identify basic CSS terminology 2. Explain the purpose of common “attributes” and their impact on the appearance of the website 3. Apply responsive website design to mobile friendly webpages. 4. Develop an external CSS file that visually enhances multiple pages of a website.

HTML5 Forms	1. Explain the purpose of the most common form control fields and labels 2. Utilize accessibility guidelines to create mobile friendly HTML5 forms 3. Choose meaningful “names” and “id” attributes for HTML5 control fields 4. Plan a web form 5. Develop a HTML5 form utilizing good practices and accessibility guidelines.
Programming Basics: Data Types, Operators, Conditions	1. Compare and contrast between Client Side and Server Side programming techniques 2. Evaluate conditional expressions 3. Distinguish between abstract equality and strict equality comparison operators 4. Build a simple JavaScript program that makes a logical decision
Object Oriented Programming and Methods	1. Explain the importance of Object Oriented Programming 2. Identify and implement a JavaScript Class 3. Develop JS Classes to describe objects 4. Compare between methods that return values and methods that perform specific tasks 5. Implement an object-oriented program that uses fields and simple methods.
Control Structures (loops)	1. Distinguish and decide between while, do while, and for loops in JavaScript 2. Utilize conditional operators to control loop iterations 3. Evaluate the output of loops 4. Implement control loop structures
Arrays	1. Initialize JS arrays manually 2. Identify the values stored on indexed arrays 3. Create associative arrays

	4. Implement control structures for assignment operations and output of data
Document Object Model (DOM)	1. Describe the Document Object Model 2. Modify HTML5 content and attributes using the JS and the DOM 3. Utilize loops, conditions, and basic programming techniques to interactively modify webpages
JQuery	1. Explain the purpose of JQuery in Client Side web development 2. Describe JQuery good practices based on documentation 3. Compare and contrast between JQuery and JS notations 4. Modify a website using JQuery notation
Advanced JQuery	1. Utilize JQuery to identify events such as mouse clicks and timers 2. Explain events 3. Utilize events to dynamically modify page elements
Form Validation – Regular Expressions	1. Explain the purpose and the structure of Regular Expressions 2. Analyze word problems and implement regular expressions in code 3. Analyze regular expressions and describe their purpose 4. Implement programs that validate fields (emails, passwords, phone numbers) using regular expressions
Form Validation – Dynamic Forms	1. Explain how scripting languages modify form elements based on pseudo attributes 2. Utilize loops, conditions, functions and regular expressions to validate form fields 3. Implement a program that dynamically modifies the form based on valid and invalid user input
Web Resources	1. Explain the importance of Web Resources, such as Google API

	2. Implement a program using an existing API 3. Modify a program that contains an API according to problem statements
Current Topic in Web Development	1. Research, explain and create applications based on current web development topics.
Final Project Presentation	

Department Policies:

- If you are unable to take an exam, it is always better to contact the professor **before** the exam, rather than after the exam.
- Unless otherwise specified by your instructor, all homework assignments and projects are to be done on your own. Handing in an identical assignment to someone else's work is considered cheating. In the case of identical work, all students involved can receive academic sanctions, up to and including course failure.
- Plagiarism in any form is unacceptable. All work that is not yours must be cited properly. Plagiarism on any part of an assignment is still plagiarism. Plagiarism will result in academic sanctions, up to and including course failure
- Tests/quizzes may include work that was not covered in class. It is expected that you are reading the textbooks, even if it is not explicitly assigned. Likewise, you are expected to take notes.
- The CIS computer lab will have the software you need for assignments, even if you do not. The department labs are open and staffed over 70 hours a week. If your home computer will not allow you to complete assignments, plan on doing your work on campus. The CIS has a department lab in Paterson in room H310. If you can use that lab, we recommend doing so. Labs are also available at other campuses or at other locations in Paterson, but the CIS lab is your best resource.
- The use of any toys (such as fidget spinners) during class is prohibited.

College Policies:

For Information regarding:

- PCCC's Academic Integrity Code
- Student Conduct Code
- Student Grade Appeal Process

Please refer to the PCCC Student Handbook and PCCC Catalog

Panther Alert:

The College will announce delayed openings, closings, and other emergency situations through the Panther Alert System. Students are encouraged to sign up for Panther Alert Notifications by logging into their student accounts through the PCCC website at www.pccc.edu and following Panther Alert System instructions.

Notification for Students with Learnings Disabilities:

If you have a disability, and believe you need accommodations in this class, please contact the Office of Disabilities Services (ODS) at 973-684-6395, or email ods@pccc.edu. You should do so as soon as possible at the start of each semester. If you require testing accommodations, you must remind me (the instructor) one week in advance of each test.

Date last modified: December 2020