Course Description

COURSE NAME	**PRG 230 Web Programming-I**
CODE	BSIT
UNITS	3
LENGTH OF CLASS	8 weeks
COURSE DESCRIPTION	This course provides a comprehensive exploration of key technologies and practices in web development. Students begin with a solid foundation in HTML and CSS, progressing to the mastery of responsive design principles and techniques for creating visually appealing and adaptable web pages across various devices. The curriculum extends to the implementation of effective web layouts, tables, forms, and controls for creating dynamic and interactive web content. The utilization of Bootstrap, a popular front-end framework, is covered to enhance efficiency and design quality in web development projects. A significant focus is placed on practical skills, with in-depth coverage of state-of-the-art practices on web page design.
REQUIRED TEXT	No textbook is required. All required online resources including journal and conference papers will be provided through direct links in each respective week. Supplementary books Sekuloski R.(2021). Web Design with HTML5 and CSS: Learn how to design, create and built responsive websites using the best HTML5 and CSS practices Frain B.(2022). Responsive Web Design with HTML5 and CSS: Build future-proof responsive websites using the latest HTML5 and CSS techniques
METHOD OF INSTRUCTION	The course is conducted in a combination modality. Students interact with each other and with the faculty in a classroom setting and in an online learning system. Learning will be facilitated through lecture-discussions, presentations, cooperative learning, and case studies.
SCOPE	Student outcomes are measured through professional individual assignments, discussion postings, comprehensive learning assessments, and class participation.

Summary of Graded Work and Assessments

Graded work and assessments offer students the opportunity to show the degree of mastery for each CLO. The following table shows how assessments and CLOs align (link).

Assignments	Totals	Weight	CLOs
Engagement and Professionalism - Laboratory Class Activities (Rubric)	160	16%	1, 2, 3, 4, 5, 6
Week 1 Assignment	115	11.5%	1, 2
Week 2 Assignment	115	11.5%	1, 2, 4
Week 3 Assignment	115	11.5%	2, 3
Week 4 Discussion	50	5%	1, 2, 3
Week 5 Assignment	115	11.5%	2, 3, 4
Week 6 Assignment	115	11.5%	2,3, 4
Week 7 Assignment	115	11.5%	4
Week 8 Presentation	100	10%	1, 2, 3, 4, 5, 6
Total Points/Percentage	**1000 Points**	**100%**	

Course Policies

For Westcliff's course policies, please see the Course Policies document.

Discussion Requirements

For all discussions, the primary response is due by Thursday at 11:59 p.m. Pacific Time. The primary response must be at least 200 words in length and fully address the topic, demonstrating critical thinking and understanding. Each student must then also post a minimum of two responses to other students in the discussion by Sunday night at 11:59 p.m. Pacific Time. Each peer response must be at least 50 words in length and substantively engage with the other student's original post, continuing the discussion in a professional manner. If at any time information or material is brought in from an outside source or website, it must be properly cited following APA 7th edition guidelines and a full reference must be provided.

Assignment Requirements

Each assignment deliverable is specifically defined in the assignment instructions, such as page length, citations and references, audio or video, presentations, tables, etc. For all written assignments, the required page length does not include the cover or references pages. Refer to the specific requirements as stated in each assignment, and reach out to your instructor for additional information as needed. All graded submissions are due by Sunday at 11:59 p.m. Pacific Time.

All written work must adhere to APA 7th edition academic formatting requirements including core components such as the cover page, page numbers, headings, citations, 1" margins, paragraph indentations, left alignment, double spacing throughout, and the final references using hanging indents

Participation Requirements

Students are required to attend each live class session either in person or virtually as stipulated in the course policies. Participation in the live class session is determined by actively engaging, answering or asking questions, providing comments, interacting in group activities, etc., as required by the instructor. Students who are unable to attend the live in-class or virtual sessions must follow the VCS submission requirements as stated in the Course Policies document.

Writing Center

The Westcliff University Writing Center is dedicated to providing quality support to students and faculty. From assignment review, to in-class workshops, to dissertation support, to publication help, the Writing Center is committed to empowering individuals to use the written language to articulate and disseminate knowledge.

Course Learning Outcomes (CLOs)

Learning outcomes are statements that describe significant and essential scholarship that students have achieved and can reliably demonstrate at the end of the course. Learning outcomes identify what the learner will know and be able to do by the end of a course – the essential and enduring knowledge, abilities (skills), and attitudes (values, dispositions) that constitute the integrated learning needed for successful completion of this course. The learning outcomes for this course summarize what students can expect to learn, and how this course is tied directly to the educational outcomes of the degree.

Course Learning Outcomes (CLOs)	PLOs
1. Summarize essential and foundation knowledge of web page design.	1, 2, 3
2. Interpret, identify, and analyze user requirements when considering the development of web page design.	1, 2, 3, 4, 7
3. Identify the accessibility rules in web page design.	4, 5, 6
4. Design and develop web pages for desktop computers and mobile devices.	1, 2, 3
5. Recognize and analyze web page design issues and apply the right courses of action.	1, 2, 4, 5, 6, 7
6. Demonstrate the understanding of web page design technologies through the project work.	1, 4

Detailed Course Outline

The following outline provides important assignment details for this course, unit by unit. Students are responsible for all of the assignments given. Please refer to the Detailed Description of Each Grading Criteria in the syllabus for specific information about each assignment.

Week 1

Assignments to complete this week:

- Reading:
  - Introduction to the Internet and Web Page Design
  - Introduction to HTML
  - HTML Basic Tags (HTML, HEAD, TITLE, BODY, Paragraph, Heading, Line Break, DIV, etc.)
  - Building a Web Page Template with HTML5
- Online:
  - W3CSchools: HTML Introduction
  - Tutorialspoint: HTML Tutorial
- Videos:
  - Youtube: HTML Tutorial for Beginners: HTML Crash Course

Week 1 Live Class Activities

This week's live class activity involves an individual task for each student. The task is to design a simple HTML web page using the basic HTML tags covered in the week. The HTML page should include at least the following tags: paragraph, heading, line break, div, hr etc. Following completion, students need to share their findings with the live class.

Week 1 Assignment (Rubric)

Provide an in-depth explanation of both static and dynamic web pages, supported by relevant diagrams. Consider conceptualizing a page related to your bibliography, college, cafe or whatever you like. Employ the functionalities of essential HTML tags, including Paragraph, Heading, Div, HR, BR, and others, while crafting the page. For your assignment, build an HTML page integrating these specified tags. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 2

Assignments to complete this week:

- Reading:
  - Enhancing a Website with Links and Images
- Online
  - HTML Links
  - HTML Links – Hyperlinks and The Target Attributes
  - HTML - Images
  - Absolute URLs vs. Relative URLs
  - Text, Email, and Image Links
- Videos
  - How to Create Links in HTML | Basics of CSS| Learn HTML and CSS | Full Course For Beginners
  - Links | HTML | Tutorial 8
  - Images | HTML | Tutorial 9

Week 2 Live Class Activities

This week's live class activity involves an individual task for each student. In the live class activities for this week, students are tasked with creating an appealing HTML web page showcasing their bibliography along with multiple images. Utilize suitable images and incorporate relevant links for an enhanced presentation. Following the completion of the task, students will have the opportunity to share and discuss their findings with the live class.

Week 2 Assignment (Rubric)

Distinguish between absolute URLs and relative URLs with examples. Create Online Shopping Product pages showcasing a minimum of five product images linked appropriately. Select a category for online shopping based on your preferences, such as tickets, fashion, groceries, medicine, handicrafts, bakery, etc. Upon clicking the image link, direct users to the corresponding product details page, and also users should have the option to return to the main page from the detail page. Feel free to employ various tags covered in week one as needed. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 3

Assignments to complete this week:

- Reading:
  - Introduction to CSS
  - Types of CSS
  - Web Design with HTML & CSS3
- Online:
  - CSS Tutorial
- Video:
  - CSS Tutorial – Full Course for Beginners

Week 3 Live Class Activities

For this week's live class activities, students will participate in the following tasks: Develop a web page navigation menu using HTML and CSS for your activities, whether it be your bibliography, college, cafe, or any topic of your choice. Share your outcomes with the live class.

Week 3 Assignment (Rubric)

In this assignment, students need to detail the various types of CSS with illustrative examples. Develop a template for the heading, content, and footer sections using CSS for your bibliography, college, cafe, or any topic of your choice. Implement this external CSS file in your main HTML page. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 4

Assignments to complete this week:

- Reading:
  - Introduction to Responsive Design
  - Adaptive vs Responsive Design
  - Responsive Design Part I: Designing for Mobile Devices
  - Responsive Design Part 2: Designing for Tablet and Desktop Computers
- Online:
  - Responsive Web Design - Introduction
  - Responsive vs. Adaptive Design
- Video:
  - CSS Media Queries & Responsive Web Design tutorial for Beginners

Week 4 Live Class Activities

In this week's live class, each student will undertake an individual task.
Engage in the following activities during the session: design and develop web pages utilizing the responsive design technique, focusing on subjects like your bibliography, college, cafe, or any topic you prefer. Ensure to test the pages in various browsers, adjusting for different screen sizes of devices. Share your discoveries and experiences with the live class.

Week 4 Discussion (Rubric)

Discuss the challenges and advantages associated with implementing responsive design, considering the role of Media Query in addressing these issues.

Week 5

Assignments to complete this week:

- Reading:
  - Introduction to HTML Layouts
  - Improving Web Design with New Page Layouts

- Online
  - HTML Layout Elements and Techniques
- Video:
  - How to create CSS Layouts - Web Development Tutorial for Beginners
  - How to Create Website Layouts Using CSS Grid | Learn HTML and CSS | HTML Tutorial

Week 5 Live Class Activities (Rubric)
In this week's live class, each student will undertake an individual task.

Design and develop a well-structured website layout based on the topics covered in this week's lectures. Choose subjects such as your bibliography, college, cafe, or any topic of your preference. Discuss and share your discoveries and experiences with the live class.

Week 5 Assignment

Define the concept of web page layout and its constituent elements. Create online shopping product pages featuring a minimum of five products, each with its corresponding detail page. Select a category for online shopping based on your preferences, such as tickets, fashion, groceries, medicine, handicrafts, bakery, etc. Ensure the website incorporates proper tags, employs a suitable CSS template, embraces responsive design principles, and adheres to a well-structured web layout. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 6

Assignments to complete this week:

- Reading:
  - Introduction to Bootstrap
  - Web Design with Bootstrap
- Online:
  - Get started with Bootstrap
  - Bootstrap Tutorial
- Video:
  - Bootstrap CSS Framework - Full Course for Beginners
  - How To Create E-commerce Website Using HTML, CSS & Bootstrap 5 | Step By Step

Week 6 Live Class Activities

In this week's live class, each student will undertake an individual task.
Create a responsive webpage with Bootstrap, incorporating various Bootstrap components such as navigation, header, and footer, aligning with the topics discussed in this week's lectures. Choose subjects such as your bibliography, college, cafe, or any topic of your preference. Discuss and share your discoveries and experiences with the live class.

Week 6 Assignment (Rubric)

Define the concept of web page layout and its constituent elements. Create online shopping product pages featuring a minimum of five products, each with its corresponding detail page. Select a category for online shopping based on your preferences, such as tickets, fashion, groceries, medicine, handicrafts, bakery, etc. Guarantee that the website integrates Bootstrap and utilizes its components, including navigation, header, footer, etc., to achieve responsive design. Implement this approach across various pages such as Home, Product, About Us, and Contact. Design distinct pages and establish links with suitable navigation menus. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 7

Assignments to complete this week:

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- Reading:
  - Creating Tables and Forms
  - Using Form Controls
- Online
  - HTML Tables
  - How To Create Tables in HTML
  - HTML Forms
- Video:
  - Bootstrap CSS Framework - Full Course for Beginners
  - How To Create E-commerce Website Using HTML, CSS & Bootstrap 5 | Step By Step

Week 7 Live Class Activities

In this week's live class, each student will undertake an individual task.
Create a responsive webpage which contains the following table and forms. Discuss and share your discoveries and experiences with the live class.

	Student Details			
SID	**Name**	**Address**	**Course**	**Email**
….	….	….	….	….

Logo	**Online Shopping**				
	Home	**Product**	**About**	**Contact**	**Feedback**
Home **Product** **About** **Contact** **Feedback**					
Copyright © 2024 Online Shopping					

Week 7 Assignment (Rubric)

Articulate the concept of an HTML form and its essential elements. Building upon Assignment 6, develop an online registration form for your project, ensuring the inclusion of relevant form elements. Integrate this registration form with the content from the previous Assignment 6. Publish your webpage project on GitHub. Ensure to provide the GitHub link when submitting your assignment.

Week 8

Assignments to complete this week:

- Review all the chapters from week 1 to 7.

Week 8 Assignment Presentation (Rubric)

Create a refined PowerPoint presentation offering a succinct summary of your progress throughout the weekly assignments (Week 1 to 7). Emphasize your project, highlight elements such as tags, attributes, CSS, responsive design, Bootstrap, layout, tables, forms, etc. Ensure your presentation covers key findings, highlights essential project features, and incorporates any suggestions and recommendations presented in your assignments.