

CONTINUING EDUCATION

COURSE OUTLINE – Web Design Certificate

INSTRUCTOR: Self-paced

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PREREQUISITE(S): None

REQUIRED TEXT/RESOURCE MATERIALS:

Course materials are included.

CALENDAR DESCRIPTION:

A well-designed website is essential for any organization today, with so many people consuming much of their information online. This suite of courses will teach you the skills you'll need to build a website of your own. Building a website involves a lot more than just writing code. Before you start on that, you need to understand what you want your website to do, how it will look, who you want it to reach, and what message it should send. The first five courses in the suite will introduce you to the basics of designing a functional and attractive site, the HTML and CSS languages you'll need to execute your design, and best practices for designing and building a website that responds intelligently to the needs of users. The capstone course will guide you through a scenario-based web design project from conception to completion.

CONTACT HOURS: 18 hours

CEUs: 1.5

DELIVERY MODE: Online self-paced

TRANSFERABILITY: N/A

GRADING CRITERIA:

Upon successful completion of the course, you will receive a Certificate of Completion.

EVALUATIONS: Learners must achieve a test score of at least 70% in each course to meet the minimum successful completion requirement and qualify to receive IACET CEUs.

STUDENT RESPONSIBILITIES: Completion of any practice lessons, quizzes, assignments, or tests.

COURSE SCHEDULE/TENTATIVE TIMELINE:

Dates vary (refer to website for current availability).

PROGRAM CONTENT:

Introduction to Web Design – 3 Hours

This is an introductory-level course providing the groundwork for building effective websites optimized in design, structure, usability, and accessibility. You will learn the fundamental principles of visual design and user experience to build webpages that are aesthetically pleasing and intuitive to navigate. The course will guide you through the website design process, from identifying your content strategy and information architecture, to choosing a layout and other design elements such as visual hierarchy, whitespace/negative space, color, and typography. You will also learn how to launch a website by selecting a domain host and website address. The course also introduces the three main website languages: HTML, CSS, and JavaScript.

Learning Outcomes

- Differentiate between the Internet and the World Wide Web
- Explain the significance of web standards and The Web Standards Project.
- Describe the "mobile-first" approach to web design and compare how different browsers, computers, and mobile devices interact with the web
- Discuss the concept of information architecture and how it relates to website design and user experience
- Understand current best practices and conventions in UX design and appraise various websites for structure, design, usability, and accessibility
- Identify and describe different design principles that contribute to an effective interface design (UI Design), including alignment, color, white space, and visual hierarchy
- Explore various website layouts and identify advantages and disadvantages of each
- Identify the three core languages that comprise web design: HTML, CSS, and JavaScript
- Summarize the process of publishing a website, including selecting a domain host and URL address

Responsive Web Design – 3 Hours

This course will introduce you to responsive web design (RWD) by reviewing basic principles and foundational techniques for designing websites that are viewable on all devices. While this is an introductory course, the material does require that you have at least a basic understanding of HTML and CSS. After completing the course, you will be able to create custom CSS layouts and use media queries to optimize websites for different screen sizes.

Learning Outcomes

- Explain the concepts and principles of responsive web design
- Define the viewport and identify how to configure a site for responsive design
- Differentiate between the CSS box and border-box models
- Calculate widths of elements on a page using the box model and border-box model
- Understand the fundamental concepts of grid-based layout systems
- Construct simple responsive layouts using CSS Flexbox
- Summarize the purpose of media queries
- Design media query syntax using breakpoints
- Discuss what is meant by mobile-first layouts in the context of responsive design
- Explain art direction and the use of the <picture> element with responsive images

JavaScript for Web Design – 3 Hours

This course introduces you to the fundamentals of scripting and basic programming concepts while exploring the ways JavaScript can add functionality to web pages. Through several lab exercises, you will progress from developing simple JavaScripts to more complex functions. From this base knowledge, you will then be introduced to popular JavaScript libraries and other similar tools and frameworks in use today.

Learning Outcomes

- Differentiate between scripted and compiled software
- Define basic programming concepts
- Identify the common components of the Document Object Model
- Author inline JavaScript as well as link to third-party JavaScript
- Integrate JavaScript calls into HTML events
- Describe the role of JavaScript libraries and frameworks in web applications
- Integrate a library and functionality into a web page
- Evaluate different solutions for adding JavaScript functionality to a web application

HTML for Web Design – 3 Hours

This is an introductory-level course designed to provide a fundamental understanding HyperText Markup Language, commonly abbreviated as HTML. HTML is the standard markup language used to create webpages. Along with CSS, and JavaScript, HTML is a cornerstone technology used to create webpages as well as to create user interfaces for mobile and web applications. The course will cover HTML tags for images, links, lists, and

tables, as well as how to organize page structures. Learners will gain experience using various HTML elements by developing a variety of different HTML documents through several lab assignments.

Learning Outcomes

- Explain how HTML communicates the structure of information via the internet
- Understand the basic structure of HTML documents
- Recognize HTML syntax
- Apply HTML elements and attributes to a webpage
- Create tables, links, and lists within a webpage
- Insert graphics within a webpage
- Utilize anchor tags to jump to a specific location on a webpage
- Summarize what is meant by semantic HTML
- Validate an HTML document

CSS for Web Design – 3 Hours

This course will introduce basic features of Cascading Style Sheets, or CSS. CSS is a versatile programming language that is used to style web pages by specifying how HTML and XML documents should appear. CSS makes it possible to control the presentation of elements on a page, including their color, dimensions, position, and behavior. A series of lab exercises provide you with opportunities to practice the tools and concepts you learn throughout the course.

Learning Outcomes

- Use selectors and declarations to create CSS rules
- Write and link an external style sheet to a webpage
- Apply color to page elements using a variety of color systems
- Create single and multiple classes to style elements
- Select a variety of fonts and apply sizing to different page elements
- Apply width and height to elements on a page
- Describe the Box Model and style elements through the use of margins, padding, and borders
- Arrange elements using float and apply the clear property
- Create vertical and horizontal navigation bars on a webpage
- Apply both link and user-action pseudo-classes
- Create responsive layouts using Flexbox
- Explore the use of drop shadows, drop caps, and other creative effects
- Explain the importance of inheritance, rule order, and the box model

Web Design Capstone: Seaside Bed and Breakfast – 3 Hours

This capstone course for the Web Design Certificate incorporates the skills you have learned about web design principles, HTML, CSS, JavaScript, and Responsive Web Design. In this course, you will be placed in the role of a web designer and asked to work through a variety of case studies to produce a new and improved website for a client, Seaside Bed and Breakfast. You will be asked to apply web design principles and coding techniques learned throughout the certificate to design and deliver a streamlined and responsive website.

Learning Outcomes

- Apply the principles of information architecture in organizing the website content for Seaside Bed and Breakfast
- Diagram a website layout that considers the fundamental concepts of user experience and usability
- Code the basic website layout in HTML based on the website layout's specifications
- Style the website according to the design specifications provided by Seaside's owners using CSS
- Add Google Analytics to the website
- Program a countdown timer using JavaScript and incorporate this into the website
- Revise and structure the HTML document and CSS stylesheet to reflect responsive web design