



Course Code	Course Name	Credits
20MCACC110	Core Practical 5: Fundamental of Web Programming	03

❖ Aim of the Course:

- 1 To know some advance concept of web design and web development.

❖ Course Overview and Context:

- 1 Understand the principles of creating an effective and responsive web page, including an in-depth consideration of information architecture.
- 2 Students will learn about the opportunities, challenges and techniques for developing websites built with the new resources provided by HTML5, CSS3 and Bootstrap.
- 3 Students will learn about the evolving principles and standards for constructing accessible websites; will understand different classes of disabilities and the available techniques for rendering websites useful to those with disabilities.

❖ Course Outcomes:

Sr.#	Course Outcome	Cognitive Level
1	Clarify critical thinking and problem solving skills required to successfully design and implement a web site.	Understand
2	State the ability to analyze, identify and define the technology required to build and implement a web site.	Remember
3	Determine knowledge of artistic and design components that are used in the creation of a web site.	Apply
4	Analyze HTML elements, CSS Style Rules, Bootstrap and JavaScript code using a WYSIWYG web development tool such as.	Analyze
5	Represent HTML elements, CSS Styles, Bootstrap Layouts and JavaScript in code views.	Understand
6	Design & develop web pages including: CSS Style Rules, Typography, Hyperlinks, Lists, Tables, Frames, Forms, Images, Behaviors, CSS Layouts and Bootstrap Concepts.	Apply

❖ Content of the Course:

Unit-1: Introduction to Web and HTML 5

- **History of internet and Web Key Terminology:**
 - Internet Protocols, The Client-server Model, Domain Name System, Uniform Resource Locator, Hyper Text Transfer protocol, Web Servers
- **Introduction to HTML5**
 - New structural elements of HTML5 (Building an HTML5 Starter document, using header element to create a site Header.
 - Using the hgroup element to group headings, creating navigation with nav element, using the new article element, grouping content with section element, creating a side bar with the aside element, using the footer element, using the HTML5 outliner to ensure the correct structure.
- **Grouping text level and redefined Semantics**
 - making up figures and Captions with the figure and figcaption element, Using the address element for contact information, Highlighting the text with mark element, Changes to existing element, Wrapping links around element.

Unit-2: Introduction to CSS and Web Forms



- **Styling HTML with CSS**
 - Creating selector using property and value, Creative a Responsive Design with CSS3 media query, making buttons with CSS Gradients.
 - Apply border to box element, Set Padding and Margin to box element. Apply Position to box. Floating using CSS, enhancing a site with Transformation and Transition, creating animation with CSS.
 - Creating a form to collect contact information, creating a slider with JQuery.
- **HTML5 & CSS Web Forms**
 - Styling input Fields like Textbox, Bordered inputs, Colored Inputs, Focused Inputs, Input with Icons.
 - Create Animated Search Input, Styling Text areas, Styling Select Menus, Styling Input Buttons, Creating Responsive Form.

Unit-3: Introduction to Bootstrap

- **Concept of Bootstrap Layout and Media object**
 - Uses of powerful mobile-first flex box grid to build layouts of all shapes and sizes twelve column systems.
 - Examples for Bootstrap's media object to construct highly repetitive components like blog comments, tweets, etc.
- **Managing Content Using Bootstrap**
 - Examples for Bootstrap typography, including global settings, headings, body text, lists, and more.
 - Examples for displaying inline and multiline blocks of code with Bootstrap.
 - Examples of images into responsive behavior (so they never become larger than their parent elements) and add lightweight styles to them—all via classes.
 - Examples for opt-in styling of tables with Bootstrap.

Unit-4: Advance concept of Bootstrap

- **Advanced Bootstrap Components like: Badges, Buttons, Cards.**
 - Provide contextual feedback messages for typical user actions with the handful of available and flexible alert messages.
 - Documentation and examples for badges, our small count and labeling component.
 - Group a series of buttons together on a single line with the button group, and super-power them with JavaScript.
 - Bootstrap's cards provide a flexible and extensible content container with multiple variants and options.
- **Advanced Bootstrap Components like: Carousel, Form Controls, Navigation bar, Progress bar**
 - A slideshow component for cycling through elements—images or slides of text—like a carousel.
 - Examples and usage guidelines for form control styles, layout options, and custom components for creating a wide variety of forms.
 - Examples for Bootstrap's powerful, responsive navigation header, the navbar. Includes support for branding, navigation, and more.
 - Examples for using Bootstrap custom progress bars featuring support for stacked bars, animated backgrounds, and text labels.

Unit-5: Introduction of Java Script

- **Data Types and Variables**
 - Types of Data in JavaScript, Variables - Storing Data in Memory, Calculation and Basic String Manipulation.



ATMIYA UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER APPLICATIONS

MASTER OF COMPUTER APPLICATIONS

- Data Type Conversion and Array.
- **Decision and Loops and Function and Scope**
 - Decision Making - The if and switch Statements, Logical Operators, Looping- The for and while Statements.
 - Creating your own functions, Scope and Lifetime, Functions as Values.
- **HTML Forms: Interacting with the User**
 - Html Element in Forms, Common Properties and Methods, Button Element, Text Element, Check Boxes and Radio Buttons, Selection Boxes.

❖ Learning Resources:

Sr. #	Textbook References Internet Links
1	Jonathan Fielding, "Beginning Responsive Web Design with HTML5 and CSS3", Apress, ISBN:978-1-4302-6694-5
2	Hege Refsnes, Stale Refsnes, Kai Jim Refsnes, Jan Egil Refsnes, C. Michael Woodward, "Learn HTML and CSS with w3schools", Wiley Publication, Inc., ISBN: 978-0-470-61195-1
3	Jennifer Nierderst Robbins, Learning Web Design, 4 th Edition, O'Reilly, ISBN: 978-1-449-31927-4
4	Bootstrap : https://getbootstrap.com/docs/4.1/getting-started/introduction/

❖ Assignments (Optional):

Sr. #	Description	Available From(Date)	Submission Date
1	Explain tags of HTML and Properties of CSS with Example. (Draw necessary Diagram)	After 3 Weeks	Within 10 Days
2	Explain Classes available in Bootstrap and JavaScript Exercises.	After 6 Weeks	Within 10 Days

Hint*

Sr#	Keyword	Action Verb
1	Remember	Recognize, recall, list, tell, locate, write, find, mention, state, draw, label, define, name.
2	Understand	Translate, Paraphrase, Represent, Clarify, Illustrate, Instantiate, Categorize, Subsume, Generalize, Abstract, find a pattern, Extrapolate, Predict, Contrast, Match, Distinguish, Differentiate, construct a model, Explain
3	Apply	determine, calculate, compute, estimate, solve, draw, modify, etc.
4	Analyze	discriminate, select, focus, distinguish, structure, integrate, find coherence, outline, parse, Deconstruct
5	Evaluate	Test, detect, monitor, coordinate, Judge (accuracy, adequacy, appropriateness, clarity, cohesiveness, completeness, correctness, reasonableness, reliability, validity)
6	Create	Develop alternative hypotheses, theories, explanations, Plan, Design, Construct