

INT219:FRONT END WEB DEVELOPER

L:2 T:0 P:2 Credits:3

Course Outcomes: Through this course students should be able to

- CO1 :: describe the principles and tools that are used to develop Web applications
- CO2 :: discuss the enhanced techniques used by web professionals for creating dynamic web pages
- CO3 :: use functions and events for user input and validation
- CO4 :: examine advanced technologies to make web pages responsive and more interactive
- CO5:: assess dynamic websites using HTML5, CSS3, and advanced Javascript
- CO6:: construct a dynamic and interactive front-end web application

Unit-I

Overview of HTML, CSS and JavaScript: Fundamentals of HTML , Creating Style Sheet, CSS Box Model- Border properties, Padding properties, Margin properties, Introduction to JavaScript, Working with Web Forms and validating user input, JavaScript functions and events, JavaScript Timing Events, JavaScript Image Slideshow, Recursive function in JavaScript, Error handling in JavaScript.

Unit-II

Document Object Model in JavaScript: Document Object Model, Programming HTML DOM with JavaScript, Assigning event handlers in JavaScript using DOM object property, addEventListener and removeEventListener in JavaScript, Event bubbling in JavaScript, Image gallery with thumbnails in JavaScript.

Unit-III

Working with jQuery and JSON: Basics of jQuery, jQuery Events, Benefits of using CDN, jQuery Selectors, jQuery input vs :input, jQuery DOM manipulation methods, jQuery Elements, Working with JSON Objects, JSON Arrays, Nested JSON object, Conversion of JSON object to string, Conversion of string to JSON object.

Unit-IV

Working with AngularJS: Basics of AngularJS, Benefits of AngularJs, Angular modules and controllers, AngularJS Directives, Handling events in AngularJS , AngularJS filters, Sorting data in AngularJS.

Unit-V

Working with Bootstrap: Introduction to Bootstrap, Setting up Bootstrap, Bootstrap Grid System, Bootstrap Image Gallery, Bootstrap Typography, Bootstrap Blockquotes and Lists, Bootstrap Code Blocks, Bootstrap Table Classes, Bootstrap Button Classes, Bootstrap Dropdown.

Unit-VI

Overview of Search Engine Optimization: Introduction to SEO, SEO Tactics and Methods, SEO Relevant Filenames, SEO Design and Layout, SEO Optimized Keywords, SEO Optimized Metatags ,SEO Title Optimization.

List of practicals/Experiments:

Overview of HTML, CSS and JavaScript:

- To demonstrate the use of singular,plural and paired tags in HTML.
- To demonstrate tables,forms and frames in HTML.
- To demonstrate the use of css,single style sheet ,multiple style sheet and css selectors.
- Program to understand the syntax for javascript,operators,functions,events and error handling in javascript.

Document Object Model in JavaScript:

- Program to demonstrate addeventlistener and removeeventlistener in JavaScript,.
- Program to demonstrate Event bubbling , Image gallery with thumbnails in JavaScript.

Working with jQuery and JSON:

- Program to demonstrate the concept of jquery events.
- Program to understand JSON Objects, JSON Arrays, Nested JSON object.
- Program to convert json object to string and string to object.

Working with AngularJS:

- Program to understand angular modules ,controllers, AngularJS Directives.
- Program to demonstrate event handling,filters and sorting data in angularjs.

Working with Bootstrap:

- Program to understand bootstrap by using Image gallery,typography.
- Program to implement Bootstrap Blockquotes and Lists, Bootstrap Code Blocks, Bootstrap TableClasses, Bootstrap Button Classes, Bootstrap Dropdown.

Overview of Search Engine Optimization:

- To design SEO layouts.
- To demonstrate SEO optimized keywords and metatags

Text Books:

1. HTML 5 BLACK BOOK by DT EDITORIAL SERVICES, DREAMTECH PRESS

References:

1. ANGULARJS IN ACTION BY LUKAS RUEBBELKE, DREAMTECH PRESS
2. BOOTSTRAP: RESPONSIVE WEB DEVELOPMENT BY JAKE SPURLOCK, O'REILLY