

FSD-301-Fundamentals of JavaScript

Description:

3 credits/126 hours

Prerequisite: None

Fundamentals of JavaScript will help students build on their foundational knowledge of web design and web building by introducing them to JavaScript. The course will use in-depth tools and activities to teach students how to use this popular scripting language to develop interactive web pages and sites.

Textbook: JavaScript for Web Warriors, 7th Ed., Carey & Vodnik – ISBN: 978-0-357-63800-2

Course objectives:

- Throughout the course, you will meet the following goals:
- Use JavaScript with HTML elements
- Work with JavaScript variables and data types and learn how to use the operations that can be performed on them
- Add functions and control flow within your JavaScript programs
- Trace and resolve errors in JavaScript programs
- Write JavaScript code that controls the web browser through the browser object model
- Use JavaScript to make sure data was entered properly into form fields and to perform other types of preprocessing before form data is sent to a server
- Create JavaScript applications that use object-oriented programming techniques
- Manipulate data in strings and arrays
- Save state information using hidden form fields, query strings, cookies, and Web Storage
- Incorporate touchscreen support and mobile capabilities in web applications
- Dynamically update web applications with Ajax and Fetch
- Build a web application using the jQuery library

Contents:

Chapter 1: Introduction to JavaScript

Chapter 2: Working with Functions, Data Types, and Operators

Chapter 3: Building Arrays and Controlling Flow

Chapter 4: Debugging and Error Handling

Chapter 5: Creating a Web App Using the Document Object Model

Chapter 6: Enhancing and Validating Forms

Chapter 7: Manipulating Data in Strings, Arrays, and Other Objects

Chapter 8: Creating Customized Objects, Properties, and Methods

Chapter 9: Managing State Information and Security

Chapter 10: Programming with Event Objects and Third-Party APIs

Chapter 11: Managing Data Requests with AJAX and Fetch

Chapter 12: Introducing JQuery

Grading Scale

A = 95-100%
B = 88-94.9%
C = 80-87.9%
D = 70-79.9%
F = Below 70%

Grade Weighting

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|--------------------------------|-------------------|
| Chapter Quizzes..... | 50% |
| Activities | 20% |
| <u>Final Exam</u> | <u>30%</u> |
| | 100% |