



Client-Side Scripting Languages and Tools 2023-2024 Catalog

[ARCHIVED CATALOG]

SDEV 250 - Client-Side Scripting Languages and Tools

PREREQUISITES: [SDEV 153 - Website Development](#).

PROGRAM: Software Development

CREDIT HOURS MIN: 3

LECTURE HOURS MIN: 2

LAB HOURS MIN: 2

DATE OF LAST REVISION: Spring, 2014

Students will learn basic to intermediate client-side scripting aspects including the use of JavaScript and other tools as related to web page development. Students will prepare client-side scripts using data types and variables, expressions and operators, functions, arrays and objects. Students will use these to interact with HTML components to create dynamic web content. Students will use scripts interacting with HTML forms, how to create, manipulate and save client-side cookies. Builds on the Web Site Development course, emphasizing the basics of client-side scripting and asynchronous Web communication serving as a natural complement to the Server-Side Scripting Languages and Tools course.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Understand the differences in the capabilities of a client-side scripting language and a server-side scripting language.
2. Understand the importance of Mobile First, responsive Web design (RWD), and progressive enhancement (PE) using the latest HTML standards and semantic elements.
3. Understand and use the basic programming syntax of JavaScript for client-side scripting to enhance Web page functionality and respond to user interactions.
4. Use the Document Object Model (DOM) to map and manipulate an HTML document.
5. Use operators, variables, arrays, control structures, events, functions (built-in and user-defined), and objects (built-in and user-defined).
6. Manipulate data using objects, properties, and methods.
7. Validate form fields using JavaScript and Regular Expressions (REGEX).
8. Understand and explain the synchronous behavior of HTTP requests.
9. Understand and explain the use of Asynchronous JavaScript and XML (AJAX) as it is used to update part of a Web page without requiring a new HTTP request (page refresh).
10. Understand and demonstrate the different uses for GET and POST requests and queries.
11. Create and utilize an XMLHttpRequest.
12. Use debugging tools to test and debug JavaScript code.
13. Use JavaScript to manipulate and manage client-side cookies.
14. Upload Web pages and sites to a server using file transfer protocol (FTP) or secure shell (SSH).
15. Write JavaScript scripts and use existing libraries to create dynamic style, rollovers, slideshows, and other progressive enhancements.

COURSE CONTENT: Topical areas of study include -

- Client
- Scripting
- AJAX
- HTTP
- JavaScript

- Debugging tools
- Data objects
- Data properties
- Data manipulation
- REGEX
- DOM
- HTML
- RWD
- PE



[Course Addendum - Syllabus \(Click to expand\)](#)
