

Course Syllabus Part I WEB 330 Enterprise JavaScript II

3 Credit Hours

Course Description

Master JavaScript by learning and solving real-world problems. This course continues where the introductory JavaScript course left off. Students use a wide range of JavaScript programming strategies to build interactive programs. Topics include object-oriented programming, unit testing, asynchronous executions, files and streams, lambda expressions, and module bundlers. Problem solving using advanced JavaScript techniques is emphasized. GitHub is used to host and share coding projects.

Course Prerequisites

WEB 200 and WEB 231

Course Skills

- Develop programs using JavaScript, HTML5, and CSS to meet project requirements.
- Utilize effective time management and task prioritization techniques to meet project obligations.

Course Objectives

Students who successfully complete this course should be able to:

- Apply object-oriented programming concepts to solve complex problems.
- Develop programs using JavaScript classes and static functions.
- Experiment with JavaScript Iterators and Generators.
- Utilize market research to design UI/UX prototypes.
- Build dynamic HTML using JavaScript and Web Components.
- Make use of asynchronous executions to load dynamic datasets.

Grading Scale

$$93 - 100\% = A$$
 $87 - 89\% = B+$ $77 - 79\% = C+$ $67 - 69\% = D+$ $90 - 92\% = A 83 - 86\% = B$ $73 - 76\% = C$ $63 - 66\% = D$ $80 - 82\% = B 70 - 72\% = C 60 - 62\% = D 0 - 59\% = F$



Topic Outline

- I. Advanced JavaScript
 - A. Unit Testing
 - B. Date, Time, and Strings
 - C. Regular Expressions
 - D. Module Bundlers
- II. Object-Oriented Programming
 - A. Classes
 - **B.** Protected Properties
 - C. Static Properties and Functions
 - D. Inheritance
 - E. Iterators and Generators
- III. Asynchronous Executions
 - A. Files and Streams
 - B. Promises
 - C. Async/Await
 - D. Ajax
- IV. Scalable HTML and CSS
 - A. Web Components
 - B. Flex Layouts
 - C. Dynamic HTML
 - D. XML and JSON