

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
IMD 221S FULL STACK WEB DEVELOPMENT
3 CREDIT HOURS

COURSE DESCRIPTION

Continuation of web development from a full stack perspective. JavaScript as a front-end scripting language is covered by providing a more in-depth study than Introduction to Web Development. Debugging JavaScript files, working with the document object model, enhancing and validating forms, using JavaScript from an object-oriented perspective, working with AJAX, and at least one JavaScript library (jQuery) are all introduced. Additional front-end, back-end, and full stack web technologies, such as Node.js, React, relational databases, structured query language (SQL), and PHP are also explored. Prerequisite: IMD 121S with a grade of “C” or better or department approval. Lab fee.

COURSE GOALS

The student will:

Bloom's Level		Program Outcomes
3	1. Use JavaScript to improve the functionality and usability of websites.	6, 7
5	2. Integrate a JavaScript library into a website and explain how one is used to enhance the website development process.	6
5	3. Use a team approach to develop a website from a full stack perspective.	2, 6, 7, 8
4	4. Analyze program code and implement debugging and exception-handling techniques.	6, 8
5	5. Produce, compile, and edit a web project for inclusion in an electronic portfolio.	5, 6
2	6. Discuss the importance of ethics in the web development industry.	1

CORE VALUES

The Core Values are a set of principles that guide Edison State in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

TOPIC OUTLINE

1. Introduction to Full Stack Web Development
2. JavaScript
 - a. Event-Driven Programming
 - b. Form Validation
 - c. JSON
 - d. Ajax
 - e. Classes
 - f. Closures
 - g. Modules
 - h. WebSockets
 - i. Promises
3. Relational Databases and SQL
4. Node.js
5. React
6. jQuery
7. PHP Fundamentals