SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 231S FRONT-END WEB DEVELOPMENT
3 CREDIT HOURS

COURSE DESCRIPTION
Continuation of web development from a front-end perspective. Advanced CSS techniques, including the use of CSS preprocessors and CSS variables are introduced. JavaScript as a front-end scripting language is covered by providing a more in-depth study than Fundamentals of Web Development. Debugging JavaScript files, working with the document object model, enhancing and validating forms, using JavaScript from an object-oriented perspective, manipulating data in strings and arrays, managing state information and security, programming for touchscreens and mobile devices, working with AJAX, and JavaScript libraries are all introduced. Prerequisite: CIS 131S 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 CSS preprocessors and apply CSS variable techniques to websites.	3, 4, 5, 7
3	2. Use JavaScript to improve the functionality and usability of websites.	3, 4, 5, 7
2	3. Describe the purpose of JavaScript libraries and how they are used to enhance the website development process.	5, 7
3	4. Use a team approach to develop a website from a front-end perspective.	3, 6
4	5. Analyze program code and implement debugging and exception handling techniques.	3, 7
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 Community College 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 Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

TOPIC OUTLINE
1. Working with Front-End Web Development
2. Understanding CSS Preprocessors
3. Understanding CSS Variables
4. Working with JavaScript
5. Working with Functions, Data Types, and Operators
6. Building Arrays and Controlling Flow
7. Debugging and Error Handling
8. Working with the Document Object Model and DHTML
9. Enhancing and Validating Forms
10. Using Object-Oriented JavaScript
11. Manipulating Data in Strings and Arrays
12. Managing State Information and Security
13. Programming for Touchscreens and Mobile Devices
14. Updating Webpages with AJAX
15. Working with jQuery and other JavaScript Libraries