SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 232S BACK-END WEB DEVELOPMENT
3 CREDIT HOURS

COURSE DESCRIPTION
Continuation of web development from a back-end perspective. Setting up a web server and installing the appropriate components will be covered. PHP as a server-side programming language and MySQL, a database platform, will be introduced and explored. Additional topics include web application internationalization, localization, security, authentication, personalization, social media integration, and e-commerce techniques. Prerequisite: CIS 213S with a grade of "C" or better and CIS 231S 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 PHP to develop a web application from the back-end.	3, 4, 5, 7
3	2. Use MySQL as a database for a website and access it using PHP.	3, 4, 5, 7
2	3. Describe the importance of security in a web application and how to implement it using PHP.	3, 5, 7
3	4. Use a team approach to develop a website from a back-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 Back-End Web Development
2. Setting Up a Web Server
3. Using PHP
   a. Storing and Retrieving Data
   b. Using Arrays
   c. Manipulating Strings and Regular Expressions
   d. Reusing Code and Writing Functions
   e. Working with Object-Oriented PHP
   f. Handling Errors and Exceptions
4. Using MySQL
   a. Designing a Web Database
   b. Creating a Web Database
   c. Working with a MySQL Database
   d. Accessing a MySQL Database from the Web with PHP
   e. Programming with Advanced MySQL

5. Working with Web Application Security
    a. Addressing Web Application Security Risks
    b. Building a Secure Web Application
    c. Implementing Authentication Methods with PHP
6. Working with Advanced PHP Techniques
    a. Interacting with the File System and Server
    b. Using Network and Protocol Functions
    c. Managing the Date and Time
    d. Internationalizing and Localizing Webpages with PHP
    e. Generating Images
    f. Using Session Control in PHP
    g. Integrating JavaScript and PHP
7. Building Practical PHP and MySQL Projects
    a. Using PHP and MySQL for Large Projects
    b. Debugging and Logging
    c. Building User Authentication and Personalization
    d. Integrating Social Media Integration Sharing and Authentication
    e. Building a Shopping Cart