

WEB 250 Database Driven Websites

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.

Course Hours per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Write PHP code to accept HTML form input, perform operations, and generate output.
2. Retrieve, insert, update, and delete data in SQL databases using PHP.
3. Develop database driven web applications using PHP, SQL, and the MySQL database.

OUTLINE OF INSTRUCTION:

- I. Introduction to Web Development with PHP
- II. How to Code a PHP Application
- III. Introduction to Relational Databases and MySQL
- IV. How to Use PHP with a MySQL Database
- V. How to Use the MVC Pattern to Organize your Code
- VI. How to Test and Debug a PHP Application
- VII. How to Work with Form Data
- VIII. How to Code Control Statements
- IX. How to Work with Strings and Numbers
- X. How to Work with Dates
- XI. How to Create and Use Arrays
- XII. How to Work with Cookies and Sessions
- XIII. How to Create and Use Functions
- XIV. How to Create and Use Objects
- XV. How to Use Regular Expressions, Handle Exceptions, and Validate Data
- XVI. How to Design a Database
- XVII. How to use SQL to Create and Work with a Database

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor.