COURSE OUTLINE PHP and Databases

Course Description

ID 125. PHP and Databases. 3 credit hours. This course will enable the student to create and maintain PHP driven websites. The student will learn how to implement PHP into current HTML-based websites and how to connect it to a dynamic MySQL database.

Required Materials

For complete material(s) information, refer to https://bookstore.butlercc.edu

Personal headphone / earbuds for in-lab use

Portable storage device (portable hard drive recommended)

The student will need to have access to a computer with administrative privileges to install and run a web server environment. Details will be given in class and in the syllabus.

Butler-Assessed Outcomes

The intention is for the student to be able to do the following:

- 1. Demonstrate the concepts of server-side web applications.
- 2. Demonstrate how to create and maintain dynamically driven websites.
- 3. Demonstrate the implementation of PHP into current HTML-based websites.

Learning PACT Skills that will be developed and documented in this course

Through involvement in this course, the student will develop ability in the following PACT skill area(s):

Technology Skills

• Discipline-specific technology - By designing and writing web-based applications and creating dynamically driven websites, the student will demonstrate the ability to use PHP and MySQL database implementation and deployment.

Major Summative Assessment Task(s)

These Butler-assessed Outcome(s) and Learning PACT skills will be demonstrated by the following:

1. Completing a summative project to create server-side web applications and a dynamically driven website using PHP that is tied to a MySQL database.

Skills or Competencies

These actions are essential to achieve the course outcomes:

- 1. Create web-based applications
- 2. Create a database driven website
- 3. Convert current HTML-based websites to integrate PHP and a database
- 4. De-bug PHP code and fix database problems
- 5. Deploy a local web server and local install of a database

Learning Units

- I. PHP and MySQL basics
 - A. Local
 - B. Remote
 - C. Your first program
 - D. Web Server
- II. PHP meets HTML
 - A. Scripts or HTML
 - B. PHP talks back
 - C. Run scripts remotely
- III. PHP syntax
 - A. Web forms
 - B. Text in PHP
 - C. Requests and arrays
 - D. User information
- IV. MySQL and SQL
 - A. What is a database?
 - B. Installation of MySQL
 - C. What is SQL?
- V. PHP to MySQL connection
 - A. Simple PHP connection scripts
 - B. Clean up your code
 - C. Build a SQL Query Runner
- VI. Regular expressions
 - A. Strings
 - B. Double time
- VII. Dynamic web pages generation
 - A. Revisit user information
 - B. Plan database tables
 - C. All about the user

VIII. Error corrections

- IX. Image handling
 - A. Storing and retrieving
 - B. File uploads
 - C. Image loading

X. Binary objects

- A. Binary object types
- B. Creating new binary objects
- XI. Listing and iterating
 - A. Object iterators
 - B. Files and directories
- XII. Administrating
 - A. Security
 - B. Cookies and authorization

Learning Activities

Learning activities will be assigned to assist the student to achieve the intended learning outcome(s) through lecture, instructor-led class discussion, instructor-led demos, guest speakers, group activities, drills/skill practice, and other activities at the discretion of the instructor. These activities may be face-to-face or online.

Grade Determination

The student will be graded on learning activities and assessment tasks. Grade determinants may include the following: daily work, quizzes, chapter or unit tests, comprehensive examinations, projects, presentations, class participation, and other methods of evaluation at the discretion of the instructor.