



Course Description

COP2842 | Developing Websites using PHP/ MYSQL | 4.00 credits

This is an intermediate course for students preparing to become web developers. Students will learn to develop dynamic, interactive websites using PHP5, an open-source programming language, and MYSQL database.

Prerequisites: COP1332 or COP1334.

Course Competencies:

Competency 1: The student will demonstrate an understanding of the web development environment by:

1. Creating web pages using HTML, XHTML, CSS, and DTDs
2. Describing client/server architecture, including the role/function of web browsers, web servers, and communication protocols
3. Differentiating between client-side and server-side scripting

Competency 2: The student will demonstrate an understanding of PHP within a dynamic web environment by:

1. Identifying the requirements and components for installing Apache, PHP, and MySQL on a server-based operating system
2. Describing the function of the Apache web server supporting PHP and MySQL
3. Creating basic PHP scripts

Competency 3: The student will demonstrate an understanding of PHP scripting language elements by:

1. Describing the PHP syntax
2. Explaining the use of variables, constants, data types, operators, functions, arrays, and flow control in simple PHP programs
3. Creating expressions using arithmetic, conditional, and comparison operators

Competency 4: The student will demonstrate an understanding of functions and control structures by:

1. Developing programs that incorporate function definitions, function calls, and function return values
2. Creating programs that use if, else, if, and else statements to evaluate conditions and use logical operators (and, not, or) in conditional statements
3. Creating programs that use while, do while, and for loops to create repetition

Competency 5: The student will demonstrate an understanding of strings by:

1. Explaining string syntax
2. Describing how to construct strings
3. Using functions to manipulate strings
4. Using strings to handle form submissions

Competency 6: The student will demonstrate an understanding of arrays by:

1. Manipulating array elements
2. Using and manipulating associative and multi-dimensional arrays

Competency 7: The student will demonstrate an understanding of files and directories by:

1. Creating programs that manipulate files, e.g., create, open, read data from files, and write data to files.
2. Identifying file and directory information and renaming and removing files from directories

Competency 8: The student will demonstrate an understanding of databases and MySQL

1. Describing relational databases
2. Designing and creating a relational database

3. Creating a database using MySQL

Competency 9: The student will demonstrate how to manipulate a MySQL database with PHP

1. Generating connections to a MySQL database with PHP
2. Analyzing MySQL Errors
3. Executing SQL statements with PHP
4. Creating and deleting databases and tables with PHP
5. Manipulating database records with PHP

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Formulate strategies to locate, evaluate, and apply information