University of Computer Studies
B.C.Sc. / B.C.Tech.

CS - 204 (PHP Programming)

Semester IV

Course Description

Course Code Number	**CS-204**	**Course Title**	**PHP Programming**
Semester Hours	Total 5 hours per week Lecture 2 hours per week Lab 2 hours per week Extra lab 1 hour to practice and submit exercises	**No. of Credit Units**	3
Prerequisite	**ITSM- 101, CS-201**	**Course Coordinator**	Dr. Phyu Hninn Myint Faculty of Computer Science
Course Length	15 Weeks	**Type of Instruction**	Lecture + Lab

Course Objective

This course introduces the fundamental concepts of dynamic web application development. The objective of this course is to understand:

- How server-side programming works on the web.
- PHP Basic syntax for variable types and calculations.
- Using PHP built-in functions and creating custom functions.
- Understanding POST and GET in form submission.
- How to receive and process form submission data.
- Reading and writing cookies.
- Create a database in phpMyAdmin.
- Read and process data in a MySQL database.

Course Outline

This course provides the knowledge necessary to design and develop dynamic, database-driven Web pages using PHP. PHP is the most popular server-side language used to build dynamic websites and is a language written for the Web, quick to learn, easy to deploy and provides substantial functionality required for e-commerce. Students learn how to connect to any modern database, and perform hands on practice with a MySQL database to create database-driven HTML forms. MySQL and PHP are two of the most popular open source technologies to emerge during the past decade. PHP is a powerful language for writing server-side Web applications. MySQL is the world's most popular open source database. Together, these two

technologies provide the students with a powerful platform for building database-driven Web applications. Comprehensive hands on exercises are integrated throughout to reinforce learning and develop real competency. Topics covered include Introducing PHP, Installing PHP, Using Variables in PHP, Understanding Data Types, Operators and Expressions, Constants, Decisions and Loops, Strings, Arrays, Functions, Handling HTML Forms with PHP, Preserving State With Query Strings, Cookies, and Sessions, Introducing Databases and SQL, Retrieving Data from MySQL with PHP and Manipulating MySQL Data with PHP are the topics of this course.

Learning Outcomes

On completion of the course the student will be able to:

- Describe and use the features and syntax of programming language PHP.
- Create, translate, and process HTML information.
- Retrieve, insert, update, and delete data from the relational database MySQL.
- Learn how to make web pages dynamic based upon user interaction, interacting with HTML forms and store and retrieve information from local data sources which include a database.

Textbook

[1] "Beginning PHP 5.3", Matt Doyle, Wiley Publishing, Inc., 2010.

Reference Book

[1] "PHP5 for Dummies", Janet Valade, Wiley Publishing, Inc., 2004.

Course Organization

Student participation in this course will involve the following activities:

- Attending the lectures
- Lab
- Test (Moodle)
- Quiz
- Assignments
- Project

Assessment Plan for the Course

Project	40 %
Assignment	20 %
Quizzes/ Moodle	20 %
Class Participation	10 %
Lab Test	10 %

Grading System

UCSY follows a letter grade system comprising of grades A, A-, B+, B, B-, C+, C, C-, D and F. All marks obtained by students during the semester will be used in the grading process. A grade of "C" or better is required in this course because it is a prerequisite for other courses in the program. **The student who gets the grade point less than 2 must sit Re-Exam.**

The grading scale for this course is:

Marks obtained	Letter Grade	Grade Point
>=90	A	4
85 – 89	A-	3.75
80 – 84	B+	3.25
75 – 79	B	3
70 – 74	B-	2.75
65 – 69	C+	2.25
60 – 64	C	2
55 – 59	C-	1.75
50 – 54	D	1
0 – 49	F	0

Fail Grade and Re-Exam: C-, D, F (Grade point <2)

Class Attendance and Participation Policy:

- **Attendance:** Class attendance is **mandatory**. Most of the material you will learn will be covered in the lectures, so it is important that you not miss any of them. You are expected to show up on time for class, and stay for the whole lecture. Students are expected to attend each class, to complete any required preparatory work (including assigned reading) and to participate actively in lectures, discussions and exercises.
- Mobile phones **must** be silenced and put away for the entire lecture unless use is specified by the instructor. You may not make or receive calls on your cell phone, or send or receive text messages during lectures.
- You are responsible for all material sent as email. Ignorance of such material is no excuse. You are responsible for all materials presented in the lectures.
- Your conduct in class should be conducive towards a positive learning environment for your class mates as well as yourself.

- **Assignments, Quizzes, Labs and Test with Moodle**

Students take a short 3 to 5 quiz for every lecture and 10 or 20 points quiz / Moodle test after each lecture or chapter. The intent of the quiz/Moodle is to discover early where the areas of misunderstanding may lie. They will account for 20% of the student's grade. The Any assignment or quiz is simply missed, regardless of the reason why (e.g. illness, work, traffic, car trouble, computer problems, death, etc.), and earns a grade of zero. You are strongly encouraged to complete all assignments and attend all quizzes so that you can check that you understand the material and can throw out bad grades, or grades for which you had to miss an assignment or quiz for a valid reason. Late submissions will not be accepted for any graded activity for any reason. Students will have the opportunity to review the quizzes and see the correct answers once they have been graded. Student need to answer test which will announce by lecturer.

- **There are no extra credit opportunities.**

Students may not do additional work nor resubmit any graded activity to raise a final grade.

- **Test**

  Test will start after one or two chapters finished and the coordinator will announce the date for the test.

- **Exam**

The exam will be conducted on-campus, in a classroom. The dates/times/locations will be posted on Board as soon as possible.

For this course, the following additional requirements are specified:

All work submitted for a grade must have been prepared by the individual student. Students are expressly prohibited from sharing any work that has been or will be submitted for a grade, in progress or completed, for this course in any manner with a person other than the instructor and teaching assistant(s) assigned to this course). Specifically, students may not do the following, including but not limited to:

- Discuss questions, example problems, or example work with another person that leads to a similar solution to work submitted for a grade.
- Give to, show, or receive from another person (intentionally, or accidentally because the work was not protected) a partial, completed, or graded solution.
- Ask another person about the completion or correctness of an assignment.
- Post questions or a partial, completed, or graded solution electronically (e.g. a Web site).
- All work must be newly created by the individual student for this course. Any usage of work developed for another course, or for this course in a prior semester, is strictly prohibited without prior approval from the instructor.
- Posting or sharing course content (e.g. instructor provided lecture notes, assignment directions, assignment questions, or anything not created solely by the student), using any non-electronic or electronic medium (e.g. web site, FTP site, any location where it is accessible to someone other than the individual student, instructor and/or teaching assistant(s)) constitutes copyright infringement and is strictly prohibited without prior approval from the instructor.
- **Programming Style and Documentation**

  Each assignment program must start with comments stating your name, the assignment number, and a brief description of the program's purpose. Students are expected to follow the Programming Style recommendations given in class and in the text. For example (but not limited to):
  - Indent statement
  - Use descriptive identifier naming conventions
  - Use single blank lines to separate sections of the program
  - Align opening and closing braces
  - Include appropriate comments throughout the program.

  Note: Student who does not follow good programming practices will result in a deduction from the grade for that assignment.

Tentative Lecture Plan

No.	Topics	Week	Remark

1.	**Chapter 1: Introducing PHP**		
	- What is PHP? - Why use PHP?	Week 1	Lecture
2.	**Chapter 2: Your First PHP Script**		
	- Installing PHP - Other Ways to Run PHP - Creating Your First Script	Week 1	Lecture + Practical
3.	**Chapter 3: PHP Language Basics**		
	- Using Variables in PHP - Understanding Data Types - Operators and Expressions - Constants	Week 1	Lectures + Practical
4.	**Chapter 4: Decisions and Loops**		
	- Making Decisions - Doing Repetitive Tasks with Looping - Mixing Decisions and Looping with HTML	Week 2	Lectures + Exercises
5.	**Chapter 5: Strings**		
	- Creating and Accessing Strings - Searching Strings - Replacing Text within Strings - Dealing with Uppercase and Lowercase - Formatting Strings	Week 3	Lectures + Exercises
6.	**Chapter 6: Arrays**		
	- The Anatomy of an Array - Creating Arrays - Accessing Array Elements - Looping Through Arrays with foreach - Working with Multidimensional Arrays - Manipulating Arrays	Week 4	Lectures + Exercises
7.	**Chapter 7: Functions**		
	- What Is a Function? - Why Functions Are Useful - Calling Functions - Working with Variable Functions - Writing Your Own Functions - Defining Parameters - Optional Parameters and Default Values - Returning Values from Your Functions - Understanding Variable Scope	Week 5	Lectures + Exercises

8.	**Chapter 9: Handling HTML Forms with PHP**		
	- How HTML Forms Work - Capturing Form Data with PHP - Dealing Securely with Form Data - Handling Empty Form Fields - Dealing with Multi-Value Fields - Generating Web Forms with PHP - Storing PHP Variables in Forms - Creating File Upload Form - Accessing Information on Uploaded Files - Limiting the Size of File Uploads - Storing and Using an Uploaded File - Redirecting after a Form Submission	Week 6	Lectures + Exercises
9.	**Chapter 10: Preserving State With Query Strings, Cookies, and Sessions**		
	- Saving State with Query Strings - Working with Cookies - Cookie Components - Setting a Cookie in PHP - Accessing Cookies in Your Scripts - Removing Cookies - Using PHP Sessions to Store Data - Creating a Session - Reading and Writing Session Data - Destroying a Session - Passing Session IDs in Query Strings - Changing Session Behavior	Week 7+8	Lectures + Exercises
10.	**Chapter 12: Introducing Databases and SQL**		
	- Setting Up MySQL - Connecting to MySQL from PHP - Making a Connection - Reading Data	Week 9	Lectures + Exercises
11.	**Chapter 13: Retrieving Data from MySQL with PHP**		
	- Retrieving Data with SELECT	Week 10	Lectures + Exercises
12.	**Chapter 14: Manipulating MySQL Data with PHP**		
	- Inserting Records - Updating Records - Deleting Records	Week 11	Lectures + Exercises
13.	**Project**	Week 12+13+14+15	

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