FACULTY OF COMPUTER SCIENCE
Master of Computer Application (Sem-IV)
In Effect from Academic Year 2017-18

Subject Code : 1CS2010407	Subject Title: PROGRAMMING WITH LINUX, APACHE, MYSQL AND PHP (LAMP)
Pre-requisite :	Programming Skills

Course Objective:

The objectives of the course are to:

- Extend proficiency in development of web application.
- Able to carry out the study of web page designing and database fundamentals.
- Get a good quality understanding of web applications of LAMP.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
				Theory		Practical		
Lecture	Tutorial	Practical	Credit	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Total
4	-	3	7	60	40	30	20	150

Subject Contents			
Sr. No	Topic	Total Hours	Weight (%)
1	**Linux Fundamentals :** Introduction to the Linux Operating System, Linux Distributions & Installation, Linux Vs Windows, Terminal V/s File Manager, Linux/Unix Commands, File Permissions in Linux/Unix, Installing Software, Linux/Unix Pipes , Grep & Sort Command, Introduction to Shell Scripting.	8	15
2	**Programming in PHP :** **Introduction to PHP :** Evaluation of PHP, BasicSyntax, Defining variable and constant, PHP Data type, Operator and Expression. **Decisions, loop, Function, String and Array :** Making Decisions, Mixing Decisions and looping with Html, Define a function, Call by value and Call by reference, Recursive function, Creating and accessing String, Searching & Replacing String, String Related Library function, Anatomy of an Array, Element Looping with Index based array,Looping with associative array using each () and foreach(),Some useful Library function.	20	35
3	**Advance PHP and MySql :** **Handling Html Form With PHP:** Capturing Form Data, Dealing with Multi-value filed , Generating File uploaded form , Redirecting a form after submission. **Working With File, Directories and State management :** Using query string(URL rewriting), Using Hidden field, Using cookies, Using session **Database Connectivity with MySql :** Connection with MySql Database, Performing basic database operation(DML) (Insert, Delete, Update, Select), Setting query parameter, Executing query.	15	40
4	**Apache HTTP Server :** Introduction of Apache HTTP server, Installation and configuration of the Apache HTTP server, Configuration files in Apache HTTP, Important Apache HTTP commands, Configuration Files, Checking for Apache HTTP problems, Apache Configuration via .htaccess, Migration of servers, Configuring virtual hosts in Apache.	5	10

Course Outcome:
At the end of this course, the student would be able

- To describe and use the LINUX operating system.
- To describe and write shell scripts in order to perform basic shell programming.
- To describe and understand the LINUX file system.
- To choose the appropriate web platform for their application using PHP.

List of References:

1. Teach yourself PHP, MySQL and Apache All in One , 5th Edition
2. Learning PHP, MySQL, books by ' O' riley Press.
3. PHP: The Complete Reference , Steven Holzner, McGraw-Hill.

List of Experiments:

Note: The experiment list provided beneath is for reference only. The course teacher may Change/formulate it as per his/her methodology and requirement.

1. Linux

1.1 Study of Unix/Linux general purpose utility command list.
1.2 Test and run basic unix commands.
1.3 Test and run Advanced unix commands
1.4 Study of Vi Editor, Bash Shell, Bourne Shell and C shell in Unix/Linux OS.
1.5 Create a shell script to print "hello Linux".
1.6 Create a shell script to read and display content of a file.
1.7 Create a shell script to add two numbers.

2. PHP and MySql

2.1 Write a PHP script to display welcome message.
2.2 Write a PHP script to demonstrate arithmetic operators, comparison operator, and logical operator.
2.3 Write PHP Script to generate result and display grade.
2.4 Write PHP Script to find maximum number out of three given numbers.
2.5 Write PHP script to demonstrate Variable function.
2.6 Write PHP script to demonstrate Array functions.
2.7 Write PHP script to demonstrate string function.
2.8 Write PHP script to demonstrate File functions.
2.9 Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.
2.10 Create a dynamic web site using PHP and MySQL.
2.11 Write PHP script to demonstrate Statement Management Function.