CA308: Introduction to Open Source Technology

(Marks 200)

Contact Hours: 07

Objectives: The objective of the course it to provide an understanding for PHP, learning popular open source platform PHP and to provide the introduction to PHP, the built in library and their configuration, the syntax, and user interface.

Prerequisite: Working knowledge of Html

Methodology & Pedagogy: During theory lectures students will be introduced to the fundamentals of PHP, various functions available in PHP and working with form elements. During Practical sessions students will be made familiar to develop website using PHP.

Outline of the Course:

Unit. No.	Title of the Unit	Minimum No of Hours	
		Theory	Practical
1.	Introduction	07	
2.	PHP Configurations and Basics	07	
3.	Control Structures	07	36
4.	Functions in PHP	09	
5.	Working With Data	09	
6.	PHP Utilities	09	

Total Hours (Theory): 48

Total Hours (Lab): 36

Total: 84

Detailed Syllabus
Unit – I: Introduction   Hours: 07

Introduction of open source software, Development philosophy of open source software, pros and cons of open source software, open source vs. close source software Introduction to Webpage and Website, Static and Dynamic Website, Client & Server Side Scripting, Introduction to other server side languages.

Unit – II: PHP Configurations and Basics   Hours: 07
Introduction to PHP, Installation of Apache, MySQL and PHP, How PHP code is parsed, Embedding PHP and HTML, Executing PHP and viewing in Browser, Data types, Operators, PHP variables: static and global variables, Comments in PHP.

Unit – III: Control Structures   Hours: 07
Condition statements : If...Else, Switch, Ternary operator.
Loops: While, Break Statement, Continue, Do...While, For, For each.
Exit, Die, Return.
Working with array in PHP.

Unit – IV: Functions in PHP   Hours: 09
Overview of built in functions of PHP, PDF functions, file handling functions, CSV file handling using PHP, User Defined Functions.

Unit – V: Working With Data   Hours: 09
FORM element, INPUT elements, validating the user input, passing variables between pages: Passing variables through GET, Passing variables through POST, Passing variables through REQUEST.
Sessions and cookies: Concept of Session, Starting session, Modifying session variables, Un registering and deleting session variable, Concept of Cookies.

Unit – VI: PHP Utilities   Hours: 09
File Uploading: Upload Single and Multiple file using PHP script, Understanding HTTP requests, Exploring and modifying HTTP responses, getting information from web server, Sending mails, Ajax with PHP.

Core Books:
>   1.SteverHolzner: The Complete Reference PHP, McGraw Hill 2.Leon
>   Atkinson: Core PHP Programming, Pearson publishers   3.Matt
>   Doyle ,Beginning PHP 5.3, Wrox : 2010.

Reference books:
1.   Peter Moulding: PHP Black Book

2.   SharnamShah,Vaishali Shah: LAMP programming for professionals,ShroffPublishers,December 2009

3.   Jason Garner,Morgan Owens, Elizabeth Naramore,MattWarden,JeremyStolz: Professional LAMP: Linux,Apache,MySQL and PHP Web Development(Paperback) Wrox,2005.

Web References:
1.   http://www.w3schools.com/php[Lecture Notes of php]

2.   http://www.php.net/[New release information of php]

3.   http://www.tutorialspoint.com/ [Lecture notes of php]

Course Outcomes: Upon successful completion of the course, the students will:
C01 :   Gain the skills and knowledge to install and use an integrated PHP/MySQL environment.

C02 : To acquire knowledge and skills for creation of web site considering both client and server side programming.

C03 : Learn the request/response cycle, including GET/POST.

C04 : Write PHP code to produce outcomes and solve problems using various available functions and control structures. able to build dynamic web applications with MySQL database connections.

C05 : Learn the different state management techniques.

Course Outcomes Mapping:

Unit No.	Unit Name	Course Outcomes				
		C01	C02	C03	C04	C05
1	Introduction		✓			
2	PHP Configurations and Basics	✓	✓			
3	Control Structures	✓	✓			
4	Functions in PHP	✓	✓			
5	Working With Data			✓	✓	✓
6	PHP Utilities		✓	✓		