

SAVITRIBAI PHULE PUNE UNIVERSITY
T.Y. B. Sc. COMPUTER SCIENCE SYLLABUS
TO BE IMPLEMENTED FROM ACADEMIC YEAR 2015-16
TITLE OF PAPER : Internet Programming I
Code No. : CS-334

Semester III

Total Lectures: 48

Aim: To Design dynamic and interactive Web pages.

Objective:

- Learn Core-PHP, Server Side Scripting Language
- Learn PHP-Database handling.

Prerequisite: HTML.

1. Introduction to web techniques **[8]**

- 1.1 HTTP basics, Introduction to Web server and Web browser
 - 1.2 Introduction to PHP
 - 1.3 What does PHP do?
 - 1.4 Lexical structure
 - 1.5 Language basics
- Book 1 chapter 2

2. Function and String **[10]**

- 2.1 Defining and calling a function
 - 2.2 Default parameters
 - 2.3 Variable parameters, Missing parameters
 - 2.4 Variable function, Anonymous function
 - 2.5 Types of strings in PHP
 - 2.6 Printing functions
 - 2.7 Encoding and escaping
 - 2.8 Comparing strings
 - 2.9 Manipulating and searching strings
 - 2.10 Regular expressions
- Book 1 chapter 3 and 4

3. Arrays **[6]**

- 3.1 Indexed Vs Associative arrays
 - 3.2 Identifying elements of an array
 - 3.3 Storing data in arrays
 - 3.4 Multidimensional arrays
 - 3.4 Extracting multiple values
 - 3.5 Converting between arrays and variables
 - 3.6 Traversing arrays
 - 3.7 Sorting
 - 3.8 Action on entire arrays
 - 3.9 Using arrays
- Book 1 chapter 5

4. Introduction to Object Oriented Programming [8]
4.1 Classes
4.2 Objects
4.3 Introspection
4.4 Serialization
4.5 Inheritance
4.6 Interfaces
4.7 Encapsulation
Book 1 , 2 chapter 12

5. Files and directories [6]
5.1 Working with files and directories
5.2 Opening and Closing, Getting information about file, Read/write to file, Splitting name and path from file, Rename and delete files
5.3 Reading and writing characters in file
5.4 Reading entire file
5.5 Random access to file data
5.6 Getting information on file
5.7 Ownership and permissions
Book 2 chapter 7

6. Databases (PHP-PostgreSQL) [10]
6.1 Using PHP to access a database
6.2 Relational databases and SQL
6.3 PEAR DB basics
6.4 Advanced database techniques
6.5 Sample application (Mini project)
Book 1 chapter 9

References

1. Programming PHP By Rasmus Lerdorf and Kevin Tatroe, O'Reilly publication
2. Beginning PHP 5 , Wrox publication
3. PHP web services, Wrox publication
4. AJAX Black Book, Kogent solution
5. Mastering PHP , BPB Publication
6. PHP cookbook, O'Reilly publication
7. PHP for Beginners, SPD publication
8. Programming the World Wide Web , Robert W Sebesta(3rd Edition)
9. Check out Joomla!press
Pearson (*Addison-Wesley Professional*).
10. www.php.net.in
11. www.W3schools.com
12. www.wrox.com
13. <https://api.drupal.org>

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TO BE IMPLEMENTED FROM ACADEMIC YEAR 2015-16
TITLE OF PAPER : Internet Programming II
Code No. : CS-344

Semester IV

Total Lectures: 48

Aim: To Design dynamic and interactive Web pages.

Objective:

- Learn different technologies used at client Side Scripting Language
- Learn XML,CSS and XML parsers.
- One PHP framework for effective design of web application.
- Learn JavaScript to program the behavior of web pages.
- Learn AJAX to make our application more dynamic.

1. Web Techniques **[10]**

- 1.1 Variables
 - 1.2 Server information
 - 1.3 Processing forms
 - 1.4 Setting response headers
 - 1.5 Maintaining state
 - 1.6 SSL
- Book 1 chapter 7

2. Handling email with php **[8]**

- 2.1 Email background
 - 2.2 Internet mail protocol
 - 2.3 Structure of an email message
 - 2.4 Sending email with php
 - 2.5 Email attachments.
 - 2.6 Email id validation and verification
 - 2.7 PHP error handling.
- Book 2 chapter 15

3. PHP framework **[4]**

- 3.1 Introduction to PHP framework.
 - 3.2 Features, Applications.
 - 3.3 One example like JOOMLA,DRUPAL.
- Book 11, <https://api.drupal.org>

4. XML **[8]**

- 4.1 What is XML?
 - 4.2 XML document Structure
 - 4.3 PHP and XML
 - 4.4 XML parser
 - 4.5 The document object model
 - 4.6 The simple XML extension
 - 4.7 Changing a value with simple XML
- Book 2 chapter 8

5. WEB DESIGNING TECHNOLOGIES(JavaScript-DHTML) **[10]**

- 5.1 Overview of JavaScript, DHTML
- 5.2 Object Orientation and JavaScript

- 5.3 Basic Syntax(JS datatypes, JS variables)
- 5.4 Primitives, Operations and Expressions
- 5.5 Screen Output and keyboard input(Verification and Validation)
- 5.6 JS Control statements
- 5.7 JS Functions
- 5.8 JavaScript HTML DOM Events(onmouseup, onmousedown, onclick, onload,onmouseover,onmouseout).
- 5.9 JS Strings.
- 5.10 JS String methods
- 5.11 JS popup boxes(alert, confirm, prompt).
- 5.12 Changing property value of different tags using DHTML
(ex. adding innerhtml for DIV tag, changing source of image etc.).

Book 10, www.w3schools.com.

6. AJAX

[8]

- 6.1 Introduction of AJAX
 - 6.2 AJAX web application model
 - 6.3 AJAX –PHP framework
 - 6.4 Performing AJAX validation
 - 6.5 Handling XML data using php and AJAX
 - 6.6 Connecting database using php and AJAX
- Book 4 chapter 1,2 and 9

References

1. Programming PHP By Rasmus Lerdorf and Kevin Tatroe O'Reilly publication
2. Beginning PHP 5, Wrox publication
3. PHP web services , Wrox publication
4. AJAX Black Book Kogent solution
5. Mastering PHP BPB Publication
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7. Learning PHP and MYSQL, O'Reilly publication
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10. Programming the World Wide Web , Robert W Sebesta(3rd Edition)
11. Check out Joomla!presss **Pearson** (*Addison-Wesley Professional*).
12. www.php.net.in
13. www.W3schools.com
14. www.wrox.com
15. <https://api.drupal.org>