

5.2 WEB DEVELOPMENT USING PHP

L T P
4 - 6

RATIONALE

This course will enable the students to understand and develop competency amongst the students to design professional database backed dynamic and feature based web sites. The course covers the use of programming with PHP and the concepts of database with MySQL. Students will be introduced to popular web application frameworks for building scalable web applications. The main objective for this course is to motivate student's interest in learning Web-app development by giving them an insight into its possibilities through practical applications. In addition, the course also provides a sufficiently broad but practical introduction to Server-side web technologies.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

- perform various logical operations in PHP
- create simple programmes to validate forms in PHP
- perform database connectivity using PHP
- apply the basic concepts, principles and practices of Web-site development using server-side technologies (PHP & MySQL)
- install Word Press
- create and manage Blogs, Websites using WordPress

DETAILED CONTENTS

20. PHP Introduction (20 Periods)

Introduction to PHP: How PHP Works , The php.ini File, Basic PHP Syntax, PHP variables, statements, operators, decision making, loops, arrays, strings, PHP OOPs concept, PHP forms (form handling , validation) , get and post methods, functions.

Introduction to cookies, storage of cookies at client side, Using information of cookies. Creating single or multiple server side sessions. Timeout in sessions.

21. PHP and MySQL (10 Periods)

Introduction to MySQL, connecting to MySQL, database, creation, insertion, deletion and retrieval of MySQL data using PHP.

22. Ajax

(08 Periods)

AJAX Introduction, XMLHttpRequest, Request object, server response, AJAX events, Validation, Interaction with API

23. WordPress (CMS)

(18 Periods)

WordPress Basics:

Introduction to content management systems based on PHP, Introduction to WordPress, How WordPress Works ,Installation of WordPress

Posts&Pages:

Introduction to Blogging, Creating Blogs, Using Images, Wrapping Text Around Images, Comments, Post Formats, Linking to Posts, Pages, and Categories, Using Smilies, Links Manager, WordPress Feeds, Using Password Protection,

Customizing Site Appearance and Themes:

Developing a Color Scheme, Designing Headers, CSS Horizontal Menus, Dynamic Menu Highlighting, Navigation Links, Next and Previous Links, Styling for Print, Designing Your Post Meta Data Section, Separating Categories in your Post Meta Data Section, Customizing the Read More, Formatting Date and Time, Finding CSS Styles, Creating Individual Pages, Uploading Files using WordPress Themes, Templates, Template Tags, Template Hierarchy, Validating a Website, Know Your Sources, WordPress Site Maintenance

LIST OF PRACTICALS

1. Design PHP based web pages using correct PHP, CSS, and XHTML syntax, structure.

2. Create Web forms and pages that properly use HTTP GET and POST protocol as appropriate.
3. Design SQL language within MySQL and PHP to access and manipulate databases.
4. Install and configure both PHP and MySQL.
5. Create PHP code that utilizes the commonly used API library functions built in to PHP.
6. Design and create a complete web site that demonstrates good PHP/MySQL client/server design using ajax
7. To store a cookie using PHP on client side.
8. To save the user session on server side.
9. Design website using WordPress
10. Creation of basic Blogging website

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of websites/WebPages to students while doing practical exercises. Since the entire course content is web based, students can practice it online. The teachers should have practice on this framework. Entire course is hands-on based so practicals should be conducted in the laboratory.

MEANS OF ASSESSMENT

- Assignments and quiz/class tests, mid-term and end-term written tests
- Actual laboratory and practical work, exercises and viva-voce
- Software installation, operation, development and viva-voce

RECOMMENDED BOOKS

1. Head First PHP &MySQL , O'Reilly Media, Inc , Michael Morrison, Lynn Beighley
2. Sams Teach Yourself PHP, MySQL, and Apache All in One" by Julie C. Meloni, Publisher: SAMS ,ISBN 0-672-32976-X
3. Web enabled development application by Ivan Byross: Commercial; TMH
4. PHP: The Complete Reference , by Steven HolznerMcgraw Higher Ed
5. PHP and MySQL Web Development , by Luke Welling , Pearson Education india
6. WordPress 3.5 Complete ,Packt Publishing , by karolkrol , Aaron hodge Silver
7. WordPress Web Application Development ,Packt Publishing
8. Professional WordPress: Design and Development, by Brad Williams, David Damstra, and Hal Stern, Wrox Publication
9. Building Web Apps with WordPress: WordPress as an Application Framework , by Brian Messenlehner and Jason Coleman , O'Reilly Media
10. e-books/e-tools/relevant software to be used as recommended by AICTE/UPBTE/NITTTR.

Websites for Reference: <http://swayam.gov.in> , <http://spoken-tutorial.org>

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	20	36
2	10	18
3	08	14
4	18	32
Total	56	100