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Course Code: INT316
Semester: V

MODERN WEB APPLICATIONS

Course Objective:

This course will help the learner to be familiar with client server architecture and to develop a web based application by selecting appropriate technologies for client and server side programming along with database connectivity.

UNIT - I   **15 Periods**

Introduction to Internet and World Wide Web: History of the Internet - World Wide Web - Web Browsers - Web Servers - Uniform Resource Locator - Tools and Web Programming Languages - Web Standards - Categories of Web Applications - Characteristics of Web Applications - Tiered Architecture. **Hypertext Markup Language (HTML):** Basic HTML page - Text Formatting - Table - Headers - Linking - Images - List - Meta Elements. **Cascading Style Sheets (CSS):** Inline, Internal and External Style Sheet - Bootstrap CSS Text - CSS forms - CSS components drop down

UNIT - II   **15 Periods**

Java Script: Introduction to Java Scripts - Objects in Java Script - Dynamic HTML with Java Script - Bootstrap JS Alert - JS Button - JS popover. **Extensible Markup Language(XML):** Introduction - Structuring Data - Document Type Definition - XML Vocabularies - Document Object Model (DOM) with JavaScript - Extensible Stylesheet Language Transforms (XSL)

UNIT - III   **15 Periods**

Writing Basic PHP Programs: Creating PHP Programs - Numbers and Strings - Literals and Variables - Operators and Functions. **Form and PHP:** Creating Form Controls - Using Values Returned From - Forms Using PHP

UNIT - IV   **15 Periods**

PHP Database Connectivity: Connecting to MySQL Server - Selecting Databases - Checking for Errors - Closing the MySQL Server Connection. **Manipulating Data in MySQL Using PHP**: Inserting, Viewing, Updating and Deleting Records - Manipulating Joined Tables. **User Authentication:** Creating Session - Authorization Level

TEXTBOOKS

1. Deitel P. J., Deitel H. M. and Deitel A. *Internet and World Wide Web: How to Program*, Pearson Prentice Hall, 5th Edition, 2012.
2. Jon Duckett. *HTML and CSS: Design and Build Websites*, John Wiley & Sons Inc., 2011.
3. Naramore E., Gerner J. and Scouarnec Y. L. *Beginning PHP5, Apache, MySQL Web Development: Programmer to Programmer*, John Wiley & Sons Inc., 2005.

REFERENCES

1. Sebesta R. W. *Programming the World Wide Web*, Pearson Education, Eighth Edition, 2014.
2. Pressman R. and Lowe D. *Web Engineering: A Practitioner Approach*, Mc Graw Hill, First Edition, 2008.

3.   Kappel G. *Web Engineering: The Discipline of systematic Development of Web Applications*, John Wiley & Sons Inc., First Edition 2006.
4.   Suh W. *Web Engineering: Principles and Techniques*, Idea Group Inc., 2005.
5.   Ullman L. *PHP for the Web: Visual Quick Start Guide*, Peachpit Press, Fifth Edition, 2016.

ONLINE MATERIALS

1.   https://nptel.ac.in/courses/106/105/106105084/
2.   https://nptel.ac.in/courses/106/106/106106156/

UNITWISE LEARNING OUTCOMES:

Upon successful completion of each unit, the learner will be able to

Unit I	- Understanding the Basics of Internet and World Wide Web - Create interactive web pages using HTML - Design attractive web pages using CSS
Unit II	- Create dynamic web pages using JavaScript and HTML - Describe XML schemas and Create XML objects for web services
Unit III	- Implementing basic PHP programs using basic programming constructs - Design a PHP form in a web page and processing it on server side
Unit IV	- Create and Demonstrate PHP Database Connectivity - Illustrate the Data manipulation in MySQL using PHP - Assess the user authentication using sessions

COURSE LEARNING OUTCOMES:
Upon successful completion of this course, the learner will be able to
- Understand the internet and client server architecture.
- Develop Interactive webpages by the use of HTML and CSS.
- Design dynamic web pages by integrating DHTML with JavaScript.
- Implement programs in PHP to demonstrate basics of PHP.
- Apply PHP Form controls and manipulate the forms in web sites.
- Analyse to use appropriate client-side or Server-side applications.
- Demonstrate the connection between a PHP program to a MySQL Database and perform insert, update and delete operations on the table.