

30 lab sessions are held in a semester, and a student has obtained an aggregate of 110 marks, then he/she will be assigned round $(110/(30*5))$ i.e. 37 marks.

- The students will submit only the soft copies of the report.
- The reports may be retained by the examiners.

Practical

Practical/discussion sessions based on the area of the project.

Teaching Learning Process

- Group Discussions
- Presentations by group of students for enhanced learning.

Assessment Methods

- Assignments, presentations, viva, quiz
- Internal assessment
- End semester exam

Keywords

Software Development, Project planning.

Web Design and development (BHCS19A) Skill-Enhancement Elective Course - (SEC)

Credit: 04

Course Objective

This course will introduce students to the fundamental concepts of web development. This course will equip students with the ability to design and develop a dynamic website using technologies like HTML, CSS, JavaScript, PHP and MySQL on platform like WAMP/XAMP/LAMP.

Course Learning Outcomes

On successful completion of the course, students will be able:

1. Design and develop a website
2. Use Front end technologies like HTML, CSS and JavaScript
3. Use backend technologies like PHP and MySQL
4. Work on platforms like WAMP/XAMP/LAMP

Detailed Syllabus

Unit 1

Introduction to Static and Dynamic Websites (Website Designing and Anatomy of Webpage)

Unit 2

Introduction to HTML and CSS (Basic Tags, Lists, Handling Graphics, Tables, Linking, Frames, Forms), Introduction to DOM

Unit 3

Introduction to JavaScript (Basic Programming Techniques & Constructs, GET/POST Methods, Operators, Functions, DOM Event handling, Forms Validation, Cookies), Inter-page communication and form data handling using JavaScript

Unit 4

Introduction to PHP (Working, Difference with other technologies like JSP and ASP), PHP Programming Techniques (Data types, Operators, Arrays, Loops, Conditional statements, Functions, Regular expressions)

Unit 5

Form Data Handling with PHP, Database connectivity and handling using PHP-MySQL

Practical

1. Practicals based on HTML
2. Practicals based on CSS
3. Practicals based on PHP
4. Practicals to create HTML forms
5. Practicals based on database connectivity with

References:

1. Bayross, I. (2013). *Web enabled commercial application development using HTML, JavaScript, DHTML and PHP*. 4th edition. BPB Publication.

2. Holzner, S.(2007). *PHP: The Complete Reference Paperback*, McGraw Hill Education (India).

Additional Resources

1. Boronczyk, T., & Psinas, M. E. (2008). *PHP and MYSQL (Create-Modify-Reuse)*. Wiley India Private Limited.
2. Welling, L., & Thompson, L. (2008). *PHP and MySQL Web Development*. 4th edition. Addition Paperback, Addison-Wesley Professional.
3. Nixon, R. (2014). *Learning PHP, MySQL, JavaScript, CSS & HTML5*. 3rd edition. Paperback, O'reilly Media
4. Sklar, D., & Trachtenberg, A., (2014). *PHP Cookbook: Solutions & Examples for PHP Programmers*. 2nd edition. O'reilly Media

Course Teaching Learning Process

- Use of ICT tools in conjunction with traditional class-room teaching methods
- Interactive sessions
- Class discussions

Assessment Methods

Written tests, assignments, quizzes, presentations as announced by the instructor in the class.

Keywords

Static and dynamic websites, form handling, database connectivity.

Programming in Python (BHCS19B) Skill-Enhancement Elective Course - (SEC)

Credit: 06

Course Objective

This course is designed to introduce the student to the basics of programming using Python. The course covers the topics essential for developing well documented modular programs using different instructions and built-in data structures available in Python.