

Hands-On

PHP Programming

PHP 4 / PHP 5



Course Description

This hands on PHP Programming course provides the knowledge necessary to design and develop dynamic, database-driven web pages using PHP version 4 & 5. PHP is a language written for the web, quick to learn, easy to deploy and provides substantial functionality required for e-commerce. This course introduces the PHP framework and syntax, and covers in depth the most important techniques used to build dynamic web sites. Students learn how to connect to any ODBC-compliant database, and perform hands on practice with a MySQL database to create database-driven HTML forms and reports. E-commerce skills including user authentication, data validation, dynamic data updates, and shopping cart implementation are covered in detail. Students also learn how to configure PHP and the Apache Web Server. Comprehensive lab exercises provide facilitated hands on practice crucial to developing competence and confidence with the new skills being learned.

Students Will Learn

- **PHP Syntax & Constructs**
- **Apache Web Server**
- **PHP Built-in Functions**
- **Arrays & Data Types**
- **Forms Handling**
- **Session Management**
- **Working with MySQL**
- **E-Commerce Techniques**

Prerequisites

Basic computer skills and knowledge of HTML fundamentals.

Course Outline

Introduction to the Apache Web Server

- Apache Configuration Files
- Configuring Apache for PHP
- WWW Sites within Apache
- Apache Virtual Hosts
- Website Properties

Overview Of PHP

- Static vs. Dynamic Web Sites
- Dynamic Content from Databases
- Developing Dynamic Internet Applications
- Client-Side Scripting vs. Server-Side Scripting
- Overview of PHP Advantages and Capabilities
- Configuring PHP.INI
- PHP vs. ASP

Basic Scripting and Looping Constructs

- PHP Scripting Fundamentals
- Print Statement
- Code Blocks
- Primitive Data Types
- Defining Constants and Variables
- Looping Constructs
 - While
 - Do While
 - For
 - Exit & Break

Conditional Constructs

- True and False Expressions
- If, Else and Elseif
- Switch/Case Statement
- The ? (Ternary) Operator
- Timestamps

PHP Functions

- Introduction to Functions
- Declaring Functions
- Scope
- Passing Arguments to Functions
- Local and Global Scope
- Passing Arguments to Functions by Value and Reference
- Returning Values from a Function
- Using Include Files
- The Require Statement
- Recursion
- Dynamic Function Calls
- Predefined PHP Functions

PHP Operators

- Logical Operators
- Relational Operators
- Bitwise Operators
- Other Operators

Arrays in PHP

- What are Arrays?

- Usage of Arrays in PHP
- Array Indexing
- Initializing Arrays
- Operating on Arrays
- Sorting Arrays
- One-Dimensional Arrays
- Multi-Dimensional Arrays
- Associative Arrays
- Array Functions
- Forms and Arrays in Web Applications

Working with Databases and Forms

- Configuring PHP For Database Support
- PHP's Database APIs
- PHP's SQL API
- MySQL vs. Access
- MySQL vs. SQL Server
- Database Drivers
- Database Driver Class Wrappers
- ODBC
- Simple SQL Queries via PHP
- Tracking Visitors with Session IDs
- Populating Forms
- Retrieving Data from Forms

Working with Data Files in PHP

- Searching File Contents With Regular Expressions
- Changing and Editing File Contents
- Splitting and Joining Information Inside Files
- String Functions
- Regular Expression Functions
- Reading, Writing and Deleting Files
- Handling File Permissions
- File Locking
- Reading Directory Contents
- Creating and Deleting Directories

Enabling E-Commerce

- Required Characteristics of an E-Commerce Site
- Authentication and Authorization
- Data Validation
- Building a Custom Shopping Cart
- Persisting Shopping Cart Data Over Multiple Pages
- Criteria for Evaluating Third Party Shopping Cart Solutions
- Open Source vs. Commercial Shopping Cart Solutions
- Order Processing via the Web
- Implementing Order System Security using SSL
- Using Mail Servers (SMTP and Sendmail) for Client Communication
- Configuring E-mail Output Parameters

Configuring and Using MySQL

- MySQL as a Client/Server Solution
- Introduction to MySQL Capabilities as a Powerful RDBMS
- Installing and Configuring MySQL
- Connecting to MySQL
- PHP Functions Specific to MySQL

- Executing SQL Calls
- Using PHP MyAdmin to configure MySQL

Using Cookies with PHP

- Purpose of Cookies
- Cookie Myths
- Setting Cookies
- Retrieving Cookies
- Expiring Cookies
- Deleting Cookies
- Storing Arrays in Cookies

Miscellaneous PHP Tasks

- Error Logging
- Session Management & Maintaining State
- Web Application Architecture
- Using Environment Variables
- Changing Execution by Redirecting to Other URLs
- Embedding JavaScript within PHP
- Using the HTTP Protocols to Pass Data
- Showing Different Content to Different Browsers
- Getting IP Addresses from Visitors

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

4 Days