



## Introduction to PHP Training

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**Class Length:** 4 days

### ***Class Goals***

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- Learn how PHP works.
- Learn the basic syntax of PHP.
- Learn to create dynamic interactive pages with PHP.
- Learn to manipulate files with PHP.
- Learn to work with arrays in PHP.
- Learn to validate forms with PHP.
- Learn to write functions in PHP.
- Learn to manipulate and manage database data with PHP.
- Learn to authenticate users with PHP.
- Learn to manage sessions with PHP.
- Learn to work with the MDB2 package.
- Learn advanced form validation with regular expressions.
- Learn to send email with PHP.

## ***Prerequisites***

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- HTML
- CSS (useful but not required)
- Basic Programming (useful but not required)

## ***Class Outline***

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The following is a proposed class outline based on your initial description of your need. Please feel free to comment on it. We are very willing to make modifications so that you get exactly what you want.

- PHP Basics
  - How PHP Works
  - The php.ini File
  - Basic PHP Syntax
    - PHP Tags
    - PHP Statements and Whitespace
    - Comments
    - PHP Functions
    - Hello World!
  - Variables
    - Variable Types
    - Variable Names (Identifiers)
    - Type Strength
    - Hello Variables!
    - Variable Scope
    - Superglobals
    - Constants
    - Variable-Testing and Manipulation Functions
  - First PHP Script
  - PHP Operators
  - Creating Dynamic Pages
    - Single Quotes vs. Double Quotes
    - Passing Variables on the URL
  - Passing Variables via the Query String
- Flow Control
  - Conditional Processing
    - If Conditions
  - Working with Conditions
  - Loops
    - while
    - do...while
    - for
    - break and continue
  - Working with Loops
- Arrays
  - Enumerated Arrays
    - Initializing Arrays
    - Appending to an Array
    - Reading from Arrays
    - Looping through Arrays
  - Working with Enumerated Arrays

- Associative Arrays
  - Initializing Associative Arrays
  - Reading from Associative Arrays
  - Looping through Associative Arrays
  - Superglobal Arrays
- Working with Associative Arrays
- Two-dimensional Arrays
  - Reading from Two-dimensional Arrays
  - Looping through Two-dimensional Arrays
- Array Manipulation Functions
- PHP and HTML Forms
  - HTML Forms
    - How HTML Forms Work
    - A Sample HTML Form
    - Form Variables
  - Processing Form Input
- String Manipulation
  - Formatting Strings
    - Concatenation
    - String Manipulation Functions
    - Examples of String Functions
  - Working with String Manipulation Functions
  - Magic Quotes
    - magic\_quotes\_gpc
    - magic\_quotes\_runtime
    - Recommendation on Magic Quotes
- Reusing Code and Writing Functions
  - Including Files
    - require
    - require\_once
    - auto\_prepend\_file and auto\_append\_file
  - Adding a Header and Footer
  - User Functions
    - Defining and Calling Functions
    - Default Values
    - Variable Scope
    - By Reference vs. By Value
  - Form Processing
    - Code Organization
  - Form Validation and Presentation Functions
- Managing Data
  - Querying a Database
    - mysqli() Overview
    - mysqli Methods and Properties
    - Inserting and Updating Records
    - mysqli Prepared Statements
  - Inserting Records
- MDB2
  - Advantages and Disadvantages of MDB2
    - Why use a database abstraction layer?
    - When not to use a database abstraction layer?

- Using MDB2
- Creating a Customer Report
- Authentication with PHP and SQL
  - A Database-less Login Form
  - Authenticating Users
- Regular Expressions
  - Perl-compatible Regular Expression Functions
    - preg\_match()
    - preg\_replace()
    - Regular Expression Tester
  - Regular Expression Syntax
    - Start and End ( ^ \$ )
    - Number of Occurrences ( ? + \* { } )
    - Common Characters ( . \d \D \w \W \s \S )
    - Grouping ( [ ] )
    - Negation ( ^ )
    - Subpatterns ( ( ) )
    - Alternatives ( | )
    - Escape Character ( \ )
  - Form Validation Functions with Regular Expressions
- Session Control and Cookies
  - Sessions
    - Configuring Sessions
    - Session Functions
  - Cookies
  - Authentication with Session Control
- Sending Email with PHP
  - mail()
    - Shortcomings of mail()
  - PHPMailer
  - Sending a Password by Email
- File System Management
  - Opening a File
    - fopen()
  - Reading from a File
    - fgets()
  - Writing to a File
    - fwrite()
  - Writing to a File
  - File Locking
    - flock()
  - Uploading Files via an HTML Form
  - Getting File Information
  - More File Functions
  - Directory Functions
    - Getting a Directory Listing
  - Creating a Resume Management Page