

**Soft-Train**



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# Beginning PHP and MySQL (5 Days) ST80014

**COURSE GOAL:** The goal of this course is to give students an understanding of using PHP and MySQL to create dynamic web sites. The student will also be able to program the site in order to make it interactive.

**PREREQUISITES:** Understanding of Programming theory and logic.

**LEARNING OBJECTIVES:**

Upon completion of this course the student will be able to:

- Understand the nature of the PHP programming language.
- Install and control PHP on a computer/server
- Install and control MySQL on a computer/server
- Create interactive forms using PHP
- Control access to areas of a webpage by using PHP
- Store data obtained on the website by using MySQL

**KEY TOPICS:**

**I. Introduction to Dynamic Web Content**

- A. HTTP and HTML:  
Berners-Lee's Basics
- B. The Benefits of PHP, MySQL, and JavaScript
- C. The Apache Web Server
- D. About Open Source
- E. Bringing It All Together
- F. Test Your Knowledge: Questions

**II. Setting Up a Development Server**

- A. What Is a WAMP, MAMP, or LAMP?
- B. Installing a WAMP on Windows
- C. Installing a MAMP on Mac OS X
- D. Installing a LAMP on Linux
- E. Working Remotely
- F. Using a Program Editor
- G. Using an IDE
- H. Test Your Knowledge: Questions

**III. Introduction to PHP**

- A. Incorporating PHP Within HTML
- B. This Book's Examples
- C. The Structure of PHP
- D. Test Your Knowledge: Questions

**IV. Expressions and Control Flow in PHP**

- A. Expressions
- B. Operators
- C. Conditionals
- D. Looping

- E. Implicit and Explicit Casting
  - F. PHP Dynamic Linking
  - G. Test Your Knowledge: Questions
- V. PHP Functions and Objects**
- A. PHP Functions
  - B. Including and Requiring Files
  - C. PHP Version Compatibility
  - D. PHP Objects
  - E. Test Your Knowledge: Questions
- VI. PHP Arrays**
- A. Basic Access
  - B. The foreach...as Loop
  - C. Multidimensional Arrays
  - D. Using Array Functions
  - E. Test Your Knowledge: Questions
- VII. Practical PHP**
- A. Using printf
  - B. Date and Time Functions
  - C. File Handling
  - D. System Calls
  - E. XHTML
  - F. Test Your Knowledge: Questions
- VIII. Introduction to MySQL**
- A. MySQL Basics
  - B. Summary of Database Terms
  - C. Accessing MySQL via the Command Line
  - D. Indexes
  - E. MySQL Functions
  - F. Accessing MySQL via phpMyAdmin
  - G. Test Your Knowledge: Questions
- IX. Mastering MySQL**
- A. Database Design
  - B. Normalization
  - C. Relationships
  - D. Transactions
  - E. Using EXPLAIN
  - F. Backing Up and Restoring
  - G. Test Your Knowledge: Questions
- X. Accessing MySQL Using PHP**
- A. Querying a MySQL Database with PHP
  - B. A Practical Example
  - C. Practical MySQL
  - D. Test Your Knowledge: Questions
- XI. Form Handling**
- A. Building Forms
  - B. Retrieving Submitted Data
  - C. An Example Program
  - D. Test Your Knowledge: Questions
- XII. Templating with Smarty**
- A. Why Smarty?
  - B. Installation
  - C. Creating Scripts
  - D. Creating Templates
  - E. A Practical Example
  - F. Test Your Knowledge: Questions
- XIII. Cookies, Sessions, and Authentication**
- A. Using Cookies in PHP
  - B. HTTP Authentication
  - C. Using Sessions
  - D. Test Your Knowledge: Questions

**XIV. Exploring JavaScript**

- A. JavaScript and HTML Text
- B. Using Comments
- C. Semicolons
- D. Variables
- E. Operators
- F. Variable Typing
- G. Functions
- H. Global Variables
- I. The Document Object Model
- J. Test Your Knowledge: Questions

**XV. Expressions and Control Flow in JavaScript**

- A. Expressions
- B. Operators
- C. The with Statement
- D. Using onError
- E. Using try...catch
- F. Conditionals
- G. Looping
- H. Explicit Casting
- I. Test Your Knowledge: Questions

**XVI. JavaScript Functions, Objects, and Arrays**

- A. JavaScript Functions
- B. JavaScript Objects
- C. JavaScript Arrays
- D. Test Your Knowledge: Questions

**XVII. JavaScript and PHP Validation and Error Handling**

- A. Validating User Input with JavaScript
- B. Regular Expressions
- C. Redisplaying a Form After PHP Validation
- D. Test Your Knowledge: Questions

**XVIII. Using Ajax**

- A. What Is Ajax?
- B. Using XMLHttpRequest
- C. Test Your Knowledge: Questions

**XIX. Using YUI for Ajax and More**

- A. Choosing a Framework
- B. Using YUI
- C. Other Uses for YUI
- D. Test Your Knowledge: Questions

**XX. Bringing It All Together**

- A. Designing a Social Networking Site
- B. On the Website
- C. rnfuctions.php
- D. rnheader.php
- E. rnsetup.php
- F. index.php
- G. rnsignup.php
- H. rnsignup.php (YUI version)
- I. rncheckuser.php
- J. rnlogin.php
- K. rnprofile.php
- L. rnmembers.php
- M. rnfriends.php
- N. rnmessages.php
- O. rnlogout.php