



PHP and MySQL Programming

Course PHP - 5 Days - Instructor-led - Hands on

Introduction

PHP and MySQL are two of today's most popular, open-source tools for server-side web programming. In this five day, instructor-led course you'll learn how to use them together. You'll create a database-driven website that implements the MVC pattern. You will learn how to build out your PHP and MySQL skills to the professional level.

Learn how to use the latest versions of PHP, MySQL, the Apache web server and the NetBeans IDE to build your first PHP applications. You'll learn to create applications that conform to the MVC pattern, so they'll be easier to maintain as they grow.

The course covers the skills you'll use every day in professional applications, like how to work with form data, dates, arrays, sessions, cookies, functions, objects, regular expressions and exceptions. Use MySQL to design and create a database and learn how to access and maintain the data in a database.

Learn important web programming skills like how to secure web pages, prevent SQL injection attacks, guard against XSS attacks, send email, upload files, process images and access content from other websites.

At Course Completion

After completing this course, students gain the following skills and concepts:

- Get going fast with PHP and MySQL
- Build web applications the right way from the start, by using the MVC (Model-View-Controller) pattern to structure your code
- Gain the core PHP skills you need to create bullet-proof applications...like how to work with arrays, dates, strings, functions, regular expressions, data validation and exception handling
- Use sessions and cookies to track users as they move through your site
- Create and use your own classes and objects in an object-oriented approach to PHP programming
- Design your own MySQL databases, and then create them using SQL DDL statements
- Query and update data using the SQL SELECT, UPDATE, INSERT and DELETE statements
- Use PDO to develop new database applications with objects
- Use mysqli to maintain legacy database applications
- Prevent SQL injection attacks, guard against XSS attacks, secure your site, send email, access content from other sites, upload files, process images
- Configure your own develop environment by learning how to install the software you need: PHP, MySQL and the Apache web server

Contact ISInc for more information at 916.920.1700 or by visiting our website at <http://www.isinc.com>



Prerequisites

Knowledge of HTML and some programming experience is required. This course does not formally teach HTML or Web page design.

Students should attend course ISI-1372B, An Introduction to HTML5 and CSS3 for Web Designers & Developers or have equivalent skills and knowledge.

Course Outline

Module 1: Introduction to Web Development with PHP

- The architecture of a web application
- The Product Discount application
- How to edit and test a PHP applications
- How to use NetBeans to develop a PHP application

Module 2: How to Code a PHP Application

- Basic PHP skills
- How to get data from a request
- How to work with data
- How to code control statements
- How to use the PHP documentation

Module 3: Introduction to Relational Databases and MySQL

- An introduction to relational databases
- The SQL statements for data manipulation
- An introduction to MySQL

Module 4: How to Use PHP with a MySQL Database

- How to connect to a database and handle exceptions
- How to get and modify data

Module 5: How to Use the MVC Pattern to Organize Your Code

- How to use the MVC pattern

Module 6: How to Test and Debug a PHP Applications

- An introduction to testing and debugging
- How to debug with xDebug and NetBeans

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Module 7: How to Work with Form Data

- How to get data from a form
- How to display data on a web page

Module 8: How to Code Control Statements

- How to code conditional expressions
- How to code the selection structures
- How to code the iteration structures

Module 9: How to Work with Strings and Numbers

- How to work with strings
- How to work with numbers
- Other skills for working with strings and numbers

Module 10: How to Work with Dates

- How to use timestamps to work with dates
- How to use objects to work with dates

Module 11: How to Create and Use Arrays

- How to create and use an array
- How to create and use an associative array
- How to use functions to work with arrays
- How to work with arrays of arrays

Module 12: How to Work with Cookies and Sessions

- How to work with cookies
- How to work with sessions

Module 13: How to Create and Use Functions

- Basic skills for working with functions
- How to create and use a library of functions
- Advanced skills for working with functions

Module 14: How to Create and Use Objects

- How to create and use classes
- How to code class constants, properties and methods
- Additional skills for working with objects
- How to work with inheritance

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Module 15: How to Use Regular Expressions, Handle Exceptions and Validate Data

- How to use regular expressions
- How to handle exceptions

Module 16: How to Design a Database

- How to design a data structure
- How to normalize a data structure
- A database design tool

Module 17: How to Use SQL to Create a MySQL Database

- How to work with databases
- How to work with tables
- How to work with indexes
- How to work with users and privileges
- Other skills for creating a database

Module 18: How to Use SQL to Work with a MySQL Database

- How to select data from a single table
- How to select data from multiple tables
- How to code summary queries
- How to code subqueries
- How to insert, update and delete rows

Module 19: Professional PHP for Working with MySQL

- Three ways to use PHP to work with MySQL
- How to work with PDO
- How to work with mysqli

Module 20: A Database-drive Website

- How to work with large text columns

Module 21: How to Create Secure Websites

- How to use a secure connection
- How to use authentication
- How to work with encrypted data

Module 22: How to Send Email and Access Other Websites

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- How to send email
- How to get data from other servers
- The YouTube Search application

Module 23: How to Work with Files, Uploads and Images

- How to work with files
- How to upload a file
- How to work with images

Module 24: An eCommerce Website

- An introduction to the website
- The user interface for end users
- The user interface for administrators