

# PHP Programming Fundamentals

## Description

PHP has become the de-facto standard server-side programming language for web applications, particularly because it works so well with Apache (the popular web server), but also because of its versatility and its simplicity of use for the implementation of relatively complex tasks, such as user authentication, possibly with the help of MySQL. During this course, the basic syntax of PHP is treated in a detailed and structured manner, though examples and also with the opportunity for students to try out everything in practice

**On successful completion of this course you will be able to:**

- build dynamic websites
  - maintain PHP-based websites
  - write programs using PHP
- 

## Outline

### Installation and configuration

- Installing and customising Apache
- conf
- Installing PHP
- configuring for MySQL

- configuration choices in php.ini
- UNIX specific setup: MS-windows specific setup

## **Introduction to PHP**

- What is PHP?; Why using PHP?; Examples of dynamic functionality on a website; Some basic concepts of HTML.

## **Basic structures in PHP**

- Interaction with HTML; variables; expressions; general syntax aspects; Datatypes; program flow through conditionals and loops; Built-in variables and their meaning; input/output.

## **The use of lists (arrays and associative arrays)**

- Structuring, searching, iterating, sorting, merging, ... of data in lists.

## **Functions**

- Creating your own functions; Passing arguments to functions; specifying default arguments.

## **Manipulation and Comparison of Data**

- Interpolation; text manipulation; cut, paste, concatenate, trim, pattern matching with regular expressions.

## **Web Forms**

- Creating fill-in forms with PHP; Validating user input; interaction with JavaScript; GET and POST.

## **Advanced Topics**

- Working with external files; Calling external (system) commands from PHP; executing a PHP program outside the context of a web server.

## **Webserver-specific Possibilities**

- HTTP authentication through PHP; login administration and password administration; Access to networking services like email, DNS, databases; HTTP session management,

navigating between pages, and the use of cookies; File upload.

## Prerequisites

A sound understanding of programming concepts is required, as well as familiarity with HTML and web server concepts.