



## Web design and development course

### Course description

The course fully covers Web design and development programming languages and presents the fundamental notions and techniques used in Web design and development.

### Prerequisite Courses

No prior knowledge about web development is required, but people are expected to have some basic knowledge about computers, some knowledge about one or two other programming languages such as Perl, java, Python or C++ etc. is an advantage.

### Learning objectives

- To familiarize the trainee with the universal concepts of computer programming.
- To present the syntax and semantics of the web development languages.
- To equip with knowledge of dynamic websites that are responsive.
- To understand the major building-blocks of websites and how to combine them.

### Course outline

- HTML
- CSS
- JavaScript
- MySQL
- PHP

## Chapters:

### **I. HTML**

- A. HTML Introduction
- B. Elements Tags
- C. Text Formatting
- D. Attributes
- E. Text Links Lists Images Image Links Email
- F. Tables
- G. Forms
- H. Layouts
- I. Headings
- J. Color Codes

### **II. CSS**

- A. CSS Introduction
- B. CSS Syntax
- C. CSS Id and Class
- D. Styling Backgrounds
- E. Styling Text, Links, Lists, Tables
- F. Styling layouts
- G. CSS Box Model, Border, Outline, Margin, Dimension
- H. CSS Positioning, Floating, Align
- I. CSS Navigation Bar
- J. CSS Image Gallery, Opacity, Sprites
- K. CSS Media Types

### **III. JavaScript**

- A. Basics of JavaScript
- B. Data Types, Variables & Operators
- C. Looping & Conditional Statements
- D. Functions
- E. Arrays
- F. Numbers, Strings, Dates, functions
- G. Events & Listeners
- H. Events Overview
- I. Form Events
- J. Timers
- K. Smarter Forms

#### **IV. MySQL**

- A. What is Database?
- B. Understanding Tables, Records, and Fields
- C. Using the MySQL Command-Line Client
- D. Working with PHP MyAdmin
- E. Creating Databases and tables
- F. Specifying Field Data Types
- G. Altering Table and Field Names
- H. Adding and Removing Fields and Keys
- I. Dropping Databases and Tables
- J. Viewing Database, Table, and Field Information
- K. SQL Queries, Inserting Records, Editing and Deleting Records
- L. Filtering Records with a WHERE Clause
- M. Sorting Records and Eliminating Duplicates
- N. Grouping Records

#### **V. PHP**

- A. PHP Introduction
- B. Introduction PHP and MySQL
- C. Write your First PHP Program
- D. Embed PHP in HTML / HTML in PHP
- E. PHP Data Types
- F. Variables in PHP
- G. Operators in PHP
- H. Conditional Statements
- I. Loops (For, While, Do While, For each)
- J. PHP Functions
- K. User defined Functions
- L. Predefined Functions
- M. Common Functions
- N. String Functions ,File Functions, Date Functions, Hash Functions, Mail Function

### **REQUIRED TEXTBOOKS AND MATERIALS:**

Text to be assigned by the instructor each semester/session