

Training Program Curriculum

• Introduction to Computer Science & IT

- Defining Computer Science & Its Fields
- Defining Information Technology
- Computer Science vs. Information Technology

• Introduction to Electronic Services, IT Systems & Information Systems

- Defining Electronic Services Types
- Reviewing Most Current Electronic Services
- Defining Information Technology Systems
- Reviewing Most current Information Technology Systems
- Defining Information Systems
- Reviewing Various Real Information Technology Systems
- Information Technology Systems vs. Information Systems

• Self-Preparation to be an IS Development

- Programmer vs. Developer
- Good & Bad Characteristics of a Developer
- Prepare Development Auditing & Time Management Tools
- Fundamentals of System Analysis

• Preparing The Development Environment

- Preparing The Work Place
- Defining The Work hours (Daily/Weekly/Monthly)
- Preparing The Work Place
- Defining The Technologies Used In Development
- Configure Technologies Used In Development (Apache/MySQL/PHP)
- Apache web server fundamentals
- Preparing Data Backup Tools & Plan

- **Information System Project**

- Defining a Project To Start Development
- Brainstorming The Project
- Planning The Project
- Designing The Project
- Defining Development Stages
- Defining Development Tasks

- **Web development – HTML & CSS**

- Introduction To HyperText Markup Language
- Editing HTML, Common Tags & Headers
- Text Styling, Linking, Images & Special Characters
- Lists, HTML Tables, HTML Forms & Internal Linking
- Images Maps & FRAMESET Tags
- Introduction Cascading Style Sheets
- Inline Styling & Creating Style Sheets
- Linking External Style Sheets
- Positioning Elements, Backgrounds & Elements Dimensions
- Text Flow & Box Model

- **Web development – Java Scripting**

- Introduction To Java Scripting
- Creating Simple Java Scripts
- Control Structures if/else
- Assignment Operators & A Note on Data Type
- JavaScript Functions

- **Web Development – Dynamic HTML & Event Model**

- Introduction To Dynamic HTML
- Dynamics Styles
- Introduction Event Model
- Event ONCLICK, ONLOAD & ONERROR
- Event ONMOUSEOVER, ONMOUSEOUT, ONFOCUS & ONBLUR
- EVENT ONSUBMIT & ONRESET

- **Web Development – PHP programming - Part I**

- Introduction To PHP - Server Side Scripting
- Viewing a Web Page - Client-Server
- Internet Protocols, The HTTP Protocol, The HTTP Request & Response
- PHP Variables & Data Types
- Web Forms, Attributes of Form, Action & Method
- Handling Web Forms With PHP
- Conditional & Branching Statements
- Form Validation
- Loops & Arrays
- PHP Functions - User Defined Functions
- PHP Functions - Built-in Functions
- Scope of Variables - Global & Local
- Includes Files
- Handling & Avoiding Errors
- Error Types & Good Coding Practice
- Receiving Input From Users
- Regular Expression, Patterns & Special Characters
- Debugging PHP Scripts
- Cookies & Sessions
- Objects, Object-Oriented Terminology
- Using Pre-Defined Classes
- Creating Classes
- File & Directory Handling
- e-Mail Handling

- **MySQL Relational Database Development**

- Introduction To The MySQL Relational Database Management System
- Introduction To SQL Statements
- Designing a Relational Database
- Managing Databases, Tables & Indexes
- Retrieving Information About Database Objects
- Manipulating Data In a MySQL Database
- Retrieving Data In a MySQL Database
- Using Operators In SQL Statement
- Using Functions in SQL Statement
- Managing Different Types of Data
- Accessing Data In Multiple Tables
- Creating Subqueries In SQL Statement
- Exporting, Copying & Importing Data

- **Web Development – PHP programming - Part II**

- PHP Database Connectivity
- Retrieving Data From MySQL Using PHP
- Manipulating Data In MySQL Using PHP

- **Delivering and evaluating the final project**

- Review & Update Project Plan
- Review & Optimize Source Codes
- Test Project Functionality
- Test Project Security
- Creating Data Flow Diagram
- Creating User Guide
- Creating Administrating Guide