

# PeopleNTech Institute of Information Technology (PIIT)

## Course Name Certified Web Development Specialist

### Area of Study

**Designing Language:** HTML5, CSS3, Bootstrap

**Scripting Language:** JavaScript and jQuery

**Designing Tool:** Photoshop

**Other Web Technologies:** SEO and SMI

**Structured Query Language:** MySQL

**Programming Language:** PHP 7.0

**Others Topics:** AJAX, XML, JSON

**Project:** A Professional E-Commerce Site Development

### Faculty Details

#### **Nirjhor Anjum**

*Faculty Head, PeopleNTech Institute of IT*

*Technical Lead, Web Development Team, Software Shop Limited*

*Chief Technical Officer, SuperbNexus LLC*

*Ex Consultant, Community Legal Service, UK Aid*

*Ex Senior Faculty for Web Technology, Computing Solutions Lab*

*Ex Software Engineer (Development Lead), Banglalion Communications Limited*

*Ex HOD, Green Heaven PVT LTD*

*Ex Manager, SBS PVT LTD*

*Ex Manager, CSS IT*

**Degree:** MSCS, BSC CIS, Diploma in WDDS

**Training:** ZCE, MCTS, SMC, PMP, CompTIA A+

## Course Description

### Course Name:

Certified Web Development Specialist

### Course Curriculum:

HTML5, CSS3, BootStrap, JavaScript, jQuery, Photoshop, SEO, SMI, MySQL, PHP, Project

### Course Time Table:

- 5 Months
- 2 Class per Week
- 3 Hours per Class

### Eligibility Criteria:

- 1) Must have to understand how to operate Computer
- 2) Should understand how to operate at least MS Office/Excel

### Benefit of this Course:

1. Will be able to work for the International Freelancing Market and local IT Companies
2. Will be able to be an entrepreneur or professionally established Web Developer
3. Will be able to craft advanced cloud applications and develop open source rich web projects using PHP
4. Will be able to develop web applications for businesses and enterprises
5. Will be able to integrate modules/plugin-ins, payment gateways into web application
6. Will be able to develop E-Commerce website or Web portal easily

## MODULE 1 – Introduction to Web Technology

### Day 1 / Learning the Basics of Web Technology

1	Idea about - Web Designing, Web Development, Software Development, Outsourcing, Freelancing.
2	Basic Ideas on - Domain, Hosting, IP, Server, NameServer, Programming Language, Designing Language, Structured Query Language, Framework, CMS, IDE, cPanel, Domain Control Panel, FTP Client, Local Server.
3	Discuss on what we will be Learning in the Web Technology course and how
4	Code Concepts, Program Concepts

### Day 2 / Learning to Use the Tools of Web Programming

1	How to use IDEs (NotePad++, NetBeans, PHPStorm, PHPedit)
2	How to use Local Server Application (XAMPP, WAMP, LAMP, MAMP)
3	How to operate cPanel and Domain Control Panel
4	How to use FTP Clients (CoreFTP, FileZilla)

## MODULE 2 – HTML and HTML5

### Day 3 / Practicing the Basics of HTML and HTML Pages

1	Comments, Starting HTML Page, Head, Style, Script, Body
2	Meta Tag, Meta Attributes, Keywords, Description, Author, Page Refresh
3	Paragraph, Heading, Division, Section, Article
4	Header, Footer, Main, Aside
5	Span, Cite, Address, Abbreviation, Details, Summary
6	Bold, Underline, Italic, Small, Strong, Subscript, Superscript
7	Delete, Mark, Code, Block Quote, Quotation

### Day 4 / Practicing Advanced HTML and Basic HTML5

1	Font, Font Size, Font Color, Font Face
2	HTML Entities – Registered Trademark, Copyright, Euro, Space, Cent, Pound
3	Symbol – Summation, Elements Of, Not Elements Of, Empty, Differential Sign
4	URL Anchor, Mail Anchor, Call Anchor, Target
5	Navigation Tag, Purpose of Navigation Tag
6	Image, Image Source, Alternate Attribute, Height and Width, Title
7	Description List, Define Terms, Define Details, Ordered List, Unordered List, List Item

### Day 5 / Practicing More HTML5 and Designing Pages

1	iFrame, iFrame Target, Sandbox Attribute, Load iFrame on Click
2	Audio, Video, Source, Media Type, Preload, Stream YouTube Video using iFrame
3	Base URL, Bidirectional Override, Preformatted Text, Data List,
4	Level, Result, Access Key, Editable Attribute, Downloadable Product
5	Table, Table Row, Table Data, Table Head, Table Body, Table Foot, Style Attribute, Border
6	HTML Form, Input Types, Get and Post Method, Button Tag, Button Attributes
7	Designing Website Layout using HTML

### Day 6 / Exam on HTML and HTML5

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## MODULE 3 – CSS and CSS3

### Day 7 / Practicing Basic CSS Codes

1	How to and Where to CSS code, Comments in CSS, Converting Style Attribute to CSS
2	ID Selector, Class Selector, Child Class, Grouping Selector, Multi Stylesheet, Link Stylesheet
3	Background Image, Background Repeat, Background Position, Background Color
4	Padding, Margin, List, Font, Link, and Table using CSS
5	CSS Combinators – Child Selector, Descendent Selector, Adjacent Selector; Target Selector
6	Dimension, Media Screen, Responsive Design
7	Cursor, Custom Font (from External and Internal Source)

### Day 8 / Designing with Advanced CSS and Basic CSS3

1	Border in CSS, Box Shadow, Opacity, Horizontal Alignment, Background Image Handling
2	White Space, Float, Clear Tag, Columns, Visibility, Animation, Animation Moves
3	Table in CSS, Position in CSS
4	An example Dropdown Menu using CSS
5	Outline, Menu Example 1 and 2, CSS for Print Screen
6	Transform, Border-box
7	Designing Button using CSS

### Day 9 / Designing more Advanced with CSS3

1	Designing Search Box and Text Fields using CSS3
2	Background Image, Background Color
3	Gradient, Text Shadow, Word Break
5	Transform, Animation, Button in CSS3, Columns, Filter
6	Designing Layout using CSS
7	Understanding the Concept of Template and Theme

### Day 10 / Exam on CSS and CSS3

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## MODULE 4 – JavaScript

### Day 11 / Basic JavaScript

1	Writing JavaScript Code, Comments, Simple Variable, Variable Types
2	JS Operators, Simple Function, Parameter, Arguments
3	If Else Statement, Handling Multiple Condition, Conditional Operators
4	Get Element By ID, Get Element By Tag Name, Get Element By Class
5	Switch Case, For Loop, EVAL Function

### Day 12 / Advanced JavaScript

1	parseInt, parseFloat, parseString, This Element
2	Class and Object, Advanced Class and Object
3	Handling String, Handling Number
4	Handling Math, Handling Math
5	Handling Array

### Day 13 / Examples on JavaScript

1	Example - Form Validation, Advanced Form Validation
2	Example - Understanding JSON Format, Auto Select, Confirm Function,
3	Example - Image Slider, Popup Page
4	Example - Printing Option Creation, Random URL, Blur
5	Example - Creating Dynamic Dropdown Menu

### Day 14 / Exam on JavaScript

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## MODULE 5 – jQuery

### Day 15 / jQuery Basics, the JavaScript Library

1	Basis Rules and Guidelines on jQuery; Show, Hide, Toggle Function;
2	Change CSS using jQuery, Menu with Mouse-over and Mouse-out
3	Focus and Blur on Text Field
4	Fade-in, Fade-out, Fade-Toggle
5	Slide-up, Slide-down, Menu using Toggle
6	Get and Set Text/HTML using jQuery;

### Day 16 / jQuery Advanced

1	Example – Add and Remove Element Dynamically
2	Get Dimension using jQuery, Animation using jQuery
3	Load File using jQuery, AJAX Page Load using jQuery, No Conflict Function
4	Make Popup using jQuery, Print Selected Division using jQuery
5	Calendar Date Picker, Crosscheck Password using jQuery

### Day 17 / Exam on jQuery

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## MODULE 6 – Search Engine Optimization & Social Media Integration

### Day 18 / Understanding SEO and SMI

1	Basics – What is SEO, Types of SEO
2	How to find better Keywords for the SEO of your Website
3	SEO Guide for Web Design – Content Guideline, Optimization, Design & Layout, Sitemap
4	Analytics – Google Analytics, Setup, Configure, Understand and Manage
5	Basics on “On-Page Optimization”
6	Domain Names & Suggestions, Popular TLD and Domain Names
7	Meta Tags, Meta Description, Meta Keywords, Title, Header, Bold Text, Invisible Text
8	Images and Alt Text Handling, Broken Link Handling, Duplicate Content
9	Internal Link Building, Sitemap Creation and Management, Robots Text
10	Server and Hosting Check, 301 Redirection, 404 Error
11	Basics on “Off-Page Optimization”
12	Page Rank, Directory Submission
13	Blog Submission, Articles Writing, Posting to Forums
14	What is Social Media Integration, What are the Most Popular Social Medias
15	Facebook Integration – Like Button, Like-box, Facebook Posts on your Website
16	More Facebook Integration – Facebook Comments
17	Facebook Ads and Marketing

## MODULE 7 – Photoshop for Web/App Developers

### Day 19 / Photoshop Tools to create Contents for Website

1	Marquee, Lasso, Slice, Crop, Move Tools and their Practical Use
2	Brush, Pencil, Patch, Stamp, History Tools and their Use
3	Eraser, Blur, Sharpen, Smudge, Dodge, Sponge, Burn Tool and their Use
4	Gradient, Paint Bucket, Different Shape Tools and their Use
5	Selection and Pen Tool
6	Eyedropper, Hand and Zoom Tool
7	Color, Swatches, Style Window and their Use
8	History Window and its Use
9	Different Type of Brush and their Use
10	Image, Canvas, Pixel, Rotation, Trim, Revert etc. Actions
11	Extract, Filter Gallery, Liquefy, Pattern Maker and their Use
12	Different type of Layer and their Use

## MODULE 8 – SQL/MySQL

### Day 20 / Understanding Database and Database Management Tools

1	What is Database; Traditional and Modern way of storing Data;
2	What are the basic Tools for Database Management, Understanding SQLYog
3	Understanding the Interface and Features of PhpMyAdmin; Data Export and Import;
4	Handling Database and Table Structure (Create, Alter, Delete) using PhpMyAdmin
5	Insert, Update, Delete data using PhpMyAdmin; Using Functions from PhpMyAdmin
6	Know about the tool SQLYog; Working on Remote Database Server;

### Day 21 / Managing Database and Table Structures in SQL/MySQL

1	MySQL Intro – How, when and where to use MySQL
2	MySQL Connect – How to get connected to MySQL
3	CREATE Database – How to Create Database
4	DROP Database – How to Drop a Database
5	KEYS– Use and Importance of Primary and Unique Key in Database
6	NULL & NOT NULL – Importance & Contradiction of NULL & NOT NULL
7	AUTO-INCREMENT – How to Auto-Increment in Database
8	DEFAULT – MySQL Default and its use
9	DATE – Date, Time and Timestamps in MySQL Database
10	CREATE Table – How to Create Table using MySQL Query
11	ALTER Table – How to Alter Table using MySQL Query
12	DROP Table – How to Drop Table using MySQL Query

## Day 22 / Advanced Queries using SQL/MySQL

1	INSERT INTO – How to insert data in a Data-Tables
2	SELECT – How to select and grab Data from Data-Table (In Different Ways)
3	WHERE – How to select Data from Database using Conditions
4	ORDER BY – How to bring Data from Database in Order
5	GROUP BY – Grouping Database outputs from MySQL
6	UPDATE – How to Update Data in a Data-Table
7	DELETE – How to Delete Data of a Data-Table
9	LEFT JOIN – Use of Left Join and its Practices
10	RIGHT JOIN – Use of Right Join and its Practices
11	FULL JOIN – Use of Full Join and its Practices
12	INNER JOIN – Use of Inner Join and its Practices

## Day 23 / Working with Advanced MySQL

1	MySQL Functions – Understanding the Importance of Functions
2	Group By, Having, Count Function
3	Average, Minimum, Maximum, Sum, Length
4	Round, Format, Now Function
5	First, Last, Mid Function
6	UCase, LCase Function
7	Understanding Primary Key, Foreign Key, Reference, and Constrain
8	Implementing Relation, and Creating Relational Database
9	Creating Database of an E-Commerce Website
10	Upload Database on Real Server (cPanel/PhpMyAdmin)

## Day 24 / Exam on SQL/MySQL

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## MODULE 9 – PHP (Basics and Advanced)

### Day 25 / Learning Basics of PHP

1	Syntax, Print / Echo – Basic concepts on PHP
2	Variables, Data Types, Constants – Data Types and Variables in PHP
3	Operators – Operators in PHP Programming
4	If...Else...Else-If – Different conditional statements in PHP
5	Switch – PHP Switch Case
6	Syntax, Print / Echo – Basic concepts on PHP
7	For Loops and Foreach Loop – Practical implementation of Loop
8	Date – Use of Date functions and their Elements



## Day 26 / Learning Advanced Topics in PHP

1	Arrays – Array and multi-dimensional data handling
2	String – Working with Strings using PHP
3	Error, Exception – Error and Exception Handling using PHP
4	Custom Functions – Use of Custom Function Development and its Practical uses
5	Library Functions – Trim, Round, Min, Max etc.
6	Handling HTML Form using PHP – Detailed guideline to use Form in PHP
7	Form Field Validation – Verifying data (Email, URL etc.) that will be accepted by Form
8	File Handling and Upload – Handling File and Uploading File using PHP
9	Form Security – Safety of Submitted Data using HTML Form / Know about SQL Injection
10	User Agent – Identify website’s Visitor Type, whether it is Bot or User

## Day 27 / Learning Cookie, Session, Encryption, Class and Object

1	Cookies – How to use Cookies in PHP
2	Sessions – Use of Session, Guideline about Login-Registration System
3	Reading File – Reading File Data in Read/Write Mode by Character or by String
4	Encryption – Data Encryption, Hash, Salt Mechanism
5	Knowing details about Class and Object
6	Understanding Constructor and Destructor
7	Child Class and Inheritance
8	Encapsulation – Private, Public and Protected Data Type
9	Static Variable, Static Function
10	Magic Method - Call, Set and Autoload Function; Concept of NameSpace

## Day 28 / Handling Database using PDO; Learning to Parse XML

1	Connect to Database using PDO Class; Understanding Prepared Statement;
2	Select Data from Database; Select Data from Database with Placeholder;
3	Insert Data into Database; Insert Data from Database using Placeholder;
4	Update Data into Database using PDO Class;
5	Delete Data from Database using PDO Class;
6	Handling Error in PDO;
7	Create Table and Database using PDO Class;
8	Parse XML; Show data from XML Data source;

## Day 29 / Sending real-time Mail & SMS; Generate PDF & Excel; AJAX Pagination

1	Send Mail using PHP with the help of Apache/SendMail Module; Send SMTP Mail
2	Send SMS using PHP with the help of SMS Gateway, Learn to use cURL
3	Generate PDF using DOM PDF Library; Generate Excel using PHPEXCEL Library
4	Create Paginated Table using AJAX

### **Day 30 / Integrate Payment Gateway; Safe File Download; Dynamic Search; Graph**

1	Integrate real-time Payment Gateway in your Project
2	Download File without creating any Download Link / Safe File downloading Facility using PHP
3	Use jQuery AJAX, PHP and MySQL to create Dynamic Search; Example of Dropdown
4	Generate Graph (Bar Diagram) using jQuery, PHP and MySQL

### **Day 31 / Exam on PHP 7.0**

1	Online Quiz
2	Mentoring Session
3	Professional Lab Test

## **MODULE 10 – Professional Project**

### **Day 32 / Preparing all the Designs and Codes for Project**

1	Creating and Documenting Requirements
2	Preparing Database for Project
3	Preparing Template for the Project
4	Preparing the Skeleton of the Project (View, Model, Controller)

### **Day 33 / Professional Web Project – Day 1**

1	Create Admin Panel; Login System and Access Level Control;
2	Admin Module - Add Admin, List Admin, Edit Admin Delete Admin;
3	Customer Module P1 – List Customer; Edit Customer Profile; Reset Customer Password
4	Customer Module P2 – List Addresses, Edit Addresses;

### **Day 34 / Professional Web Project – Day 2**

1	Product Module - Add Product, List Product, Edit Product, Delete Product; Set Featured Product;
2	Order Module – List Invoice/Orders, Change Invoice/Order Status; Send Mail on Status Change;
3	Slider Module – Add Slider, Edit Slider, Delete Slider

### **Day 35 / Professional Web Project – Day 3**

1	Login in the Website
2	Register in the Website; Send Mail on Registration;
3	Reset Password

### **Day 36 / Professional Web Project – Day 4**

1	My Account Page
2	Address Book Page
3	Make Dynamic Menu

### **Day 37 / Professional Web Project – Day 5**

1	Make Category and Sub-Category Pages
2	Make Product Details Page
3	Create Shopping Cart and Shopping Cart Page

### **Day 38 / Professional Web Project – Day 6**

1	Order Submission; Checkout Page
2	Payment Gateway Integration
3	Send Payment Notification; Generate Invoice
4	Order List Page

### **Day 39 / Professional Web Project – Day 7**

1	Make static information pages Dynamically manageable from Admin Panel
2	Understanding General QA Testing (Functionality and Usability Testing) from the perspective of Web Developer
3	Keeping a Buffer Time for the Project Development

### **Day 40 / Know details about Freelancing and Outsourcing**

1	How to create UpWork /Freelancer Accounts
2	How to make a 100% Perfect Profile for Freelancing Job
3	Which exams should a person attain to Highlight his Freelancer Portfolio
4	How to receive a job and its Requirements, and start working with it
5	How to Deliver the job and receive Payment
6	What are the scopes of National Level Job Market in Web Technology Sector
7	Some more Tips and Tricks about Web Technology Career
8	Getting ready for Local Market as Job Seeker / Local Freelancer