Web Page Designing(HTML,CSS, JavaScript, PHP SQL with XAMP server)

Detailed Syllabus

UNIT I : Internet :

Evolution, Protocols, Interface Concepts, Internet Vs Intranet, Growth of Internet, ISP, Connectivity - Dialup, Leased line, VSAT etc., URLs, Domain names, Portals, Application. E-MAIL - Basics of Sending & Receiving, Word Wide Web (www) - History, Working, Web Browsers, Its functions, Concept of Search Engines, Searching the Web, HTTP, Common terminologies: LAN, WAN, Node, Host, Workstation, bandwidth, Network Components: Severs, Clients, Communication Media, Types of network: Clients Server, Network topologies: Bus, star and ring.

UNIT-II Concepts of Hypertext:

HTML introduction, features, uses & versions Using various HTML tags, Elements of HTML syntax, Head & Body Sections, , Inserting texts, Text alignment, Using images in pages, Hyperlinks text and images, bookmarks, Backgrounds and Color controls, creating and using Tables in HTML, and presentation, Use of font size & Attributes, List types and its tags.

UNIT-III

Introduction to WYSIWYG Design tools for HTML, Overview of MS FrontPage, Macromedia Dream weaver, and other popular HTML editors, designing web sites using MS FrontPage Cascading Style Sheets

UNIT-IV :Javascript :

Javascript vs. Java, Javascript versions, Script element,. Functions: Functions introduction, Calling functions, Javascript Comments, Variables: Variables overview, declaring variables, Types of variables, Casting variables, Alert box , Prompt & confirm. Expressions: Arithmetic operators, Assignment operators, Logical operators, Expressions and precedence, Statements: If statement, For statement, While statement, Break/Continue statements, Creating arrays/event handlers, JavaScript Object model, Object and Events in JavaScript OnClick, On MouseOver, On Focus, OnChange, OnLoad etc. Getting data with forms.

RDBMS using SQL

UNIT I

Introduction to database -What is a Database, Why use a Relational Database, Overview of Database Design Data Normalization (Determining tables, Determining Fields,

Determining Relationships) Integrity Rules (Primary/Foreign Key, One-to-Many, Many-to-Many, One-to-One)

UNIT II

Purpose of database system, Views of data, Data models: Relational, Network, Hierarchical, Instances & Schemes, Data Dictionary, Types of Database languages : DDL, DML, Structures of a DBMS, Advantages & Disadvantages of a DBMS, 3- level Architecture Proposal : External, Conceptual & Internal Levels

UNIT III

Entity Relationship Model as a tool of conceptual design : Entities & Entity set, Relationship & Relationship set, Attributes, Mapping Constraints, Keys, Entity-Relationship diagram Relations, Domains, Attributes, Tuple, Concepts of Keys: Candidate key, Primary Key, Alternate Key, Super Key, Foreign Key, Fundamental integrity rules: Entity integrity, Referential integrity, Normalization: 1NF, 2NF, 3NF

UNIT IV

Creating Tables, Views, Joins and queries in SQL Server. Working with Table: Data Management and Retrieval: DML adding a new Row/Record Customized Updating and Deleting an Existing Rows/Records retrieving Data from Table Arithmetic Operations restricting Data with WHERE clause Sorting Functions and Grouping: Built-in functions Grouping Data. Multiple Tables: Joins

Typical Core Subjects for PHP

Subject Title	Subject Details
Introduction to web	The Internet comprises billions of customers and servers linked by wired and wireless networks. Web clients send requests to the web server. The web server accepts the request, searches for resources, and responds to the client. When a server responds to a request, it usually provides the client with some kind of content. Some parts of the syllabus are: • Introduction • WWW architecture, fundamentals of HTML • Text formatting tags, marquee • Inserting images, Links • Lists • Creating tables • Frames • Working with form elements

Cascading Style Sheets	CSS (Cascading Style Sheets) is a style sheet language for describing the appearance of a document authored in a markup language like HTML. Along with HTML and JavaScript, CSS is a key component of the World Wide Web. Some parts of the syllabus are listed below: • Introduction • CSS properties • Controlling fonts, text formatting • Text- pseudo-classes, selectors, links, backgrounds, lists • Introduction to Javascript • Javascript variables, operators, decision control statements • Looping and arrays • Functions and events • Popup boxes-alert, prompt, confirm box • Built-in objects, writing JavaScript form validation

Typical Elective Subjects for PHP

Subject title	Subject details
Building Web Applications in PHP	You will learn about the basic structure of a web application, web browser interaction with a web server, and the request/response cycle, including GET/POST/Redirect. You will also learn the basics of HTML and the PHP language's basic syntax and data structures, variables, logic, iteration, arrays, error handling, and superglobal variables, among other things. A basic understanding of Cascading Style Sheets (CSS) will enable you to style webpage HTML. Finally, you will learn how to set up and operate an integrated PHP/MySQL environment like XAMPP or MAMP.
HTML	Hyper Text Markup Language or HTML is the most widely used markup language for building websites. The structure of a Web page is described in HTML. HTML is made up of different elements. Its components specify how the content will be displayed in the browser.
CSS	Cascading Style Sheets (CSS) is a language for describing the appearance of a document written in a markup language like HTML. Along with HTML and JavaScript, CSS is a key component of the World Wide Web.

Detailed Syllabus for PHP

Semester	Core/Elective	Subject title	Subject details
1.	Introduction to PHP	Introduction to PHP	PHP is an HTML-based server-side scripting language. It can handle dynamic content, databases, session tracking, and even complete e-commerce sites. MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server are among the common databases it supports.
2.	Decisions and loop	Decisions and loop	In this topic, students will learn about Making Decisions, Doing Repetitive tasks with looping, Mixing Decisions, and looping with HTML.

3.	Function	Function	This topic covers general definition of a function along with call by value and reference, recursive function, string creation and access, string Search and replacement, string formatting, string related library function.
4.	Array	Array	This subject includes topics such as anatomy of an array, creating index based and associative array accessing array, element looping with index-based array, looping with associative array using each () and for each (), some useful library functions.
5.	Handling Html Form with Php	Handling Html Form with Php	This subject includes topics such as capturing form, data dealing with multi-value fields, and generating file uploaded form, redirecting a form after submission.
6.	Working with files and Directories	Working with files and Directories	This subject includes the topics: understanding file & directory, opening and closing a file, copying, renaming and deleting a file, working with directories, creating and deleting a folder, file uploading and downloading.
7.	Session and Cookie	Session and Cookie	This subject includes topics such as introduction to session control, session functionality, introduction to cookie, setting cookies with PHP, using cookies with sessions, deleting cookies, registering session variables, destroying the variables and session.
8.	Database Connectivity with MySql	Database Connectivity with MySql	This subject includes topics such as introduction to RDBMS, connection with MySql Database, performing basic database operation (DML) (Insert, Delete, Update, Select), setting query parameter, executing query join (Cross joins, Inner joins, Outer Joins, Self joins)
9.	Exception Handling	Exception Handling	This subject includes topics such as understanding exception and error, try, catch, throw, error tracking and debugging.

Specialisations offered in PHP

Here are a few specialisations offered in PHP.

Specialisation	Specialisation Subjects	Subject Details
Artificial Intelligence	Neural networks Pattern recognition Algorithms Machine Learning Language processing Robotics Automata	The ability of a computing system to solve problems, make predictions, or execute complicated tasks is referred to as artificial intelligence (AI). Artificial intelligence applications make use of cutting-edge technology like natural language processing, which understands written and spoken words, and machine learning. It allows apps to make predictions and suggestions.
Game Design	Introduction to the game Game Analysis Centipede	This specialisation of game design looks at AI and machine learning that dictates

	Game Programming Language C > Game & Graphic Code Game Idea: Visualisation & Storytelling. The Essence of Game 1 Modelling, Texturing & Lighting Games Theft Auto III Studio Design & Project Management	how players move through a game and the realistic graphics that make today's computer games so engaging. It also addresses how front-end designers and back-end developers should collaborate to provide a seamless user experience.
Networks	Application Layer, DNS, SMTP, HTTP, FTP, TFTP, TELNET. Transport layer, TCP Protocol, UDP Protocol, State transition diagram in TCP, Congestion Control policies. Network layer, IPv4, IPv6, IP addressing, Routing Protocols, Fragmentation.	This specialty examines how businesses communicate with internal and external stakeholders via wired and wireless networks. Management of bandwidth, traffic, user access, network security, and any devices linked to the network are all responsibilities.
Computer Graphics	User interface design, sprite graphics, rendering, ray tracing, geometry processing, computer animation, vector graphics, 3D modelling, shaders, GPU design, implicit surfaces, visualisation, scientific computing, image processing, computational photography.	This specialisation focuses on two- and three-dimensional pictures used in software applications such as gaming, computer-assisted design, manufacturing, and multimedia publishing. Effective computer visual design analyses the optimal approach to display those images given limits such as screen size, system memory, and bandwidth, in addition to the concepts of creating realistic images.
Information Security	Application and platform security Careers and certifications Cloud security Compliance Data security and privacy Identity and access management Network security Risk management	Software applications, networks, storage gear, devices, and other facets of an organisation's security are all managed by information security specialists. It necessitates a thorough understanding of security flaws and the numerous methods used by internal and external attackers to exploit them.
Data Science	Probability and Inferential Statistics Discrete Mathematics Data Warehousing and Multidimensional Modelling Object-Oriented Programming in Java Machine Learning Operations Research and Optimisation Techniques Introduction to Artificial Intelligence Cloud Computing	Data science is the capacity to "mine" massive data sets for useful information or insight. Suppose an organisation utilises various methodologies to acquire and analyse data. This data may include "big data", i.e., huge, complex, and sometimes unstructured sets of information. In that case, the organisation profits from data science as a practice.
Software Engineering	Modelling and Simulation Digital and Embedded Systems Game and Entertainment Geographic Information Systems Network-centric Systems	Software engineering focuses on the systems and protocols for using these applications in addition to application creation. Professionals in these professions may specialise in various areas, including debugging, testing, security, and scalability, or an application's capacity to add users or features without affecting performance.

Systems	International Business Management e-Business Strategy Principles of Macroeconomics Language Programming Principles of Financial Management System Analysis and Specification Marketing management E-commerce	This computer science specialisation assists a company in getting the most out of the technology, software, and services that employees utilise daily. These items can include both self-developed systems and third-party products. Performance, security, and productivity of both the systems and the workers that work with them are major issues in this function.