



**Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore**  
**Shri Vaishnav Institute of Information Technology**  
**Choice Based Credit System (CBCS) in Light of NEP-2020**  
**Generic Elective Courses (GEC) (2021-2025)**

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			ENDESEM University Exam	Two Term Exam	Teachers Assessment*	ENDESEM University Exam	Teachers Assessment*				
<b>GESVIIT201P</b>	<b>GEC</b>	<b>Web Application Development</b>	<b>60</b>	<b>20</b>	<b>20</b>	<b>30</b>	<b>20</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>3</b>

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;  
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**Course Objectives:**

1. To introduce the fundamentals concepts of HTML.
2. Describe the basic of MySQL and PHP.
3. Study the Basic terminology of CSS and JavaScript.
4. Explain the basic terminologies of Python, Perl and Angular JS.

**Course Outcomes:**

1. Understand the basic terminologies of HTML and CSS.
2. Be aware of the basic uses of PHP, MySQL and XML.
3. Students will be able to develop a dynamic webpage by the use of java script.
4. Develop applications for different problem.

**Syllabus:**

**UNIT I**

**Introduction of HTML:** HTML Documents, SGML, and Basic structure of an HTML document, Text Elements, Tag Elements, Special Character elements, Image tags, HTML Table tags and lists, Anchor tag, Name tag.

**Introduction of CSS:** CSS Syntax, CSS Id & Class. CSS Styling: styling Backgrounds, styling Text, styling Fonts, styling Links, styling Lists, styling Tables. CSS Box Model: Border, Outline, Margin, Padding.

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## UNIT II

**Introduction of XML:** Cross scripting of XML, XML as intermediate language, Difference between XML and HTML, XML DOM, Tree, Syntax, Elements, Attributes, Namespaces.

**Java Server Pages Basics:** Integrating Scripts in JSP, JSP Objects and Components, Configuration and Troubleshooting, JSP: Request and Response Objects, Retrieving the Contents of An HTML Form, retrieving a Query String, Working with Beans, Cookies, Creating and Reading Cookies. Using Application Objects and Event Handling.

## UNIT III

**Introduction to PHP:** Identify Relationship Between Apache, MySQL and PHP, Steps to Install and Test Web Server, Configure Apache to Use PHP, Create Simple PHP Page Using PHP Structure and Syntax, Use of PHP Variables, Data Types and PHP Operators, Apply Control Structures in Programming, Steps to Create User Defined Functions.

## UNIT IV

**Introduction to Python:** Basic concepts of python languages, data types, variables, basic input-output operations, basic operators, Boolean values, conditional execution, loops, lists and list processing, logical and bitwise operations, functions, tuples, dictionaries, and data processing, modules, packages, string and list methods, and exceptions.

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### UNIT V

**Introduction to Perl** and scripting, scripts, programs, Web scripting and PERL names, values, variable, scalar expression, control structures, and arrays. Introduction of Angular JS, Industrial usage of angular JS benefits of Angular JS.

#### Text Books:

1. The World of Scripting Languages, David Barron, Wiley Publications.
2. Python Web Programming, Steve Holden and David Beazley, New Riders Publications.
3. Beginning PHP and MySQL, 3<sup>rd</sup> Edition, Jason Gilmore, Apress Publications

#### Reference Books:

1. Open Source Web Development with LAMP using Linux, Apache, MySQL, Pen and PHP, J.Lee and B.Ware(Addison Wesley) Pearson Education.
2. Programming Python, M.Lutz, SPD.
3. PHP 6 Fast and Easy Web Development, Julie Meloni and Matt Telles, Cengage Learning Publications.
4. Core Python Programming, Chun, Pearson Education.
5. Guide to Programming with Python, M.Dawson, Cengage Learning.
6. Pen by Example, E.Quigley, Pearson Education.
7. Programming Perl, Larry Wall, T.Christiansen and J.Orwant, O'Reilly, SPD.

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**List of Practical's:** (If Practical Credit Shown in Syllabus)

1. Create a Web Page that has a button in the center of the page. Using mouse events change the Message in the status bar.
2. Write a PHP script to demonstrate arithmetic operators, comparison operator, and logical operator.
3. Write PHP Script to print Fibonacci series.
4. JavaScript program to generate Fibonacci series and to look for motifs and patterns in sequences.
5. JavaScript program to find out frequency of characters existing in nucleotide and protein sequences
- 6 JavaScript's implementation to generate dynamic HTML pages.
6. Write PHP programs to do basic operations to deal with strings, and arrays, and to implement various mathematical functions.
7. Development of an PHP program to take set of sequences and find out conserved sequences.
8. Create a MySQL database tables and execute all SQL queries.
9. Write a PHP program to connect MySQL database and execute all SQL commands.
10. Construct a PHP interface for a given Web page and to produce its overall connectivity.
11. Write programs in Perl to implement string handling and other functions to be implemented to deal with biological data management.

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