# SAGE University, Indore

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| **Institute Name: Institute of Computer Application** | | | | | | | |
| **Recommended Programs : BCA** | | | | | **Semester : I** | | |
| **Course Name** | Web Technology | | **Course Code** | CAPDCWET002T | | | |
| **Credit Hours** | L | T | P | N | | **Total Credits** | 3 |
| 3 | 0 | 0 | 0 | |
| **Prerequisites** | Basic of HTML and some idea about website layout (**083)** | | | | | | |
| **Course Objectives** | The purpose of offering this course are:   1. To introduce students to web technologies such as HTML, CSS, XML, Java Script teach them to create static and simple dynamic web pages or applications using these technologies and to understand web application deployment and software architectures. 2. Students will learn basic web application design, development and testing skills. 3. On completion of this course the learner should be able to design and implement a variety of dynamic Website | | | | | | |
| **Course Content** | **Unit I: Introduction to the Internet and the World Wide Web**  Introduction, History of internet, Internet Design Principles, Web System architecture, Evolution of the Web, Web architectures, Web clients and servers, Static and Dynamic Web Applications, Front end and back end web development. HTML, CSS, JS, XML; HTTP, secure HTTP, etc; URL.  **Number of Lectures required: 9**  **Unit II: HTML and CSS**  Introduction to Html, Html Document structure, Html Editors, Html element/tag & attributes, Introduction to HTML5, CSS3, New features, Designing simple page - Html tag, Head tag, Body tag; More Html tags - Anchor tag, Image tag, Table tag, List tag, Frame tag, Div tag ; Html forms - Input type, Text area, Select, Button, Images.  Introduction to CSS, Syntax, Selectors, Embedding CSS to Html, Formatting fonts, Text & background color, Inline styles, External and Internal Style Sheets, Borders & boxing.  **Number of Lectures required: 10**  **Unit III:XML and JavaScript**  Introduction to XML, Difference b/w Html & XML, XML editors, XML Elements & Attributes XML DTD, XML Schema, XML Parser, Document Object Model (DOM), XML DOM.  Introduction to JavaScript: Data types, variables, operators, expressions, statements, functions, objects, arrays, date, math, error handling, flow control, loops.  **Number of Lectures required: 9**  **Unit IV: Practical website development**  Commonly used Web Servers and browsers, Setting up a server and domain name, website types and structures, web authoring tools, Web hosting, website maintenance, generating traffic to your website.  **Number of Lectures required: 8**  **Unit V:PHP Server side scripting**  Introduction to PHP, Basic Syntax, Variables, constants and operators, Loops, Arrays and Strings, Environment & environment variables, responding to HTTP requests, Files, Cookies, Sessions, Examples  **Number of Lectures required: 10** | | | | | | |
| **Text Books** | 1. Practical Web Design for Absolute Beginners, Adrian W. West. Apress 2016 2. Introducing Web Development, Jorg Krause. Apress 2017. 3. HTML & CSS: The Complete Reference, Thomas Powell. McGraw Hill, Fifth Edition, 2010 4. Creating a Website: The Missing Manual, 3rd Edition, Mathew Macdonald. O’Reilly 5. Web Technologies - HTML, JavaScript, PHP, Java, JSP, ASP.NET, XML and Ajax Black, Kogen Learning Systems (Dreamtech Press), 5th Edition 2009. | | | | | | |
| **References** | 1. HTML, XHTML & CSS Bible, Brian Pfaffenberger, Steven M.Schafer, Charles White, Bill Karow- Wiley Publishing Inc, 2010 2. HTML5 & CSS3 for the Real World, 2 Edition, [Alexis Goldstein](http://www.allitebooks.com/author/alexis-goldstein/), [Estelle Weyl](http://www.allitebooks.com/author/estelle-weyl/), [Louis Lazaris](http://www.allitebooks.com/author/louis-lazaris/). Apress 2015. 3. HTML5 & CSS3 for Dummies, Andy Harris. Wiley 2014. 4. Learning PHP A Gentle Introduction to the Web's Most Popular Language, David Sklar. O’Reilly 2016. 5. Build Your Own Database Driven Web Site Using PHP & MySQL, Kevin Yank. Sitepoint , 4th Edition, 2009. | | | | | | |
| **Course Outcomes** | After completion of the course the student will be able:   1. Explain basic Client-Server web architecture and Understand working of web protocols like HTTP, TCP/IP, DNS as well as IP and web address resolution schemes such as URIs/URLs and DNS 2. Use and recognize commonly used HTTP request and response messages and Differentiate and create both static and dynamic web applications 3. Understand and use HTML/CSS and XML and Create static web pages using HTML & CSS 4. Understand and use PHP for server side scripting 5. Understand about web hosting and maintenance | | | | | | |

**Mapping of Course outcome with Program Outcomes, PSO’s, and Knowledge Levels (As per Blooms Taxonomy)**

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| **CO/PO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** | **PSO4** | **Knowledge Levels (K1, K2, …, K6)** |
| **CO1** | 3 | 2 |  |  |  | 1 |  |  | 1 |  | 1 | 2 | 2 | 1 |  | 2 | K2 |
| **CO2** | 3 | 2 | 3 |  |  | 1 |  |  | 1 |  | 1 | 2 | 2 | 1 |  | 2 | K3 |
| **CO3** | 3 | 2 | 3 | 3 |  | 1 |  |  | 1 |  | 1 | 2 | 2 | 1 | 1 | 2 | K3 |
| **CO4** | 3 | 2 | 3 | 2 |  | 1 |  |  | 1 |  | 1 | 2 | 2 | 2 | 1 | 2 | K5 |
| **CO5** | 3 | 2 | 3 | 3 | 1 | 1 |  |  | 1 |  | 1 | 2 | 2 | 2 | 1 | 2 | K6 |

**High-3 Medium-2 Low-1**

**K1 =>Remember K2 =>Understand K3 =>Apply K4 =>Analyze K5 =>Evaluate K6 =>Create**

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| Designed By:  **(Name with Sign.)** | Checked By:  **(Name with Sign.)** | Approved By:  **(Name with Sign.)** |