

| Course code | Name | L-T-P-Credits | Year of Introduction |
|---|---------------------|---------------|----------------------|
| IT302 | Internet Technology | 4-0-0-4 | 2016 |
| Prerequisite : Nil | | | |
| Course Objective <ul style="list-style-type: none"> To impart the basics of web page design To understand important components of HTML5 documents and use HTML5 to create web pages To learn to use JavaScript in Webpages to enhance the functionality and appearance of web pages To know XML schema and transformation To design dynamic web pages using PHP. | | | |
| Syllabus Computers and internets –Web basics -HTML5 – Page-Structure elements -cascading style sheets – positioning elements -JavaScript- Control statements –Repetition statement – Mutiple selection statement - Functions – Arrays – Objects- Document object model –Dynamic styles - XML – Web servers – Server side programming | | | |
| Expected Outcomes After the course the students would be able to <ol style="list-style-type: none"> analyze and apply the role of languages like HTML, CSS, XML, Javascript, PHP and the workings of the web and web applications analyze a web project and identify its elements and attributes in comparison to traditional projects. analyze and create web pages using HTML, and Cascading Styles sheets. analyze and build dynamic web pages using JavaScript (client side programming). analyze and create XML documents and XML Schema. analyze and build interactive web applications using PHP | | | |
| TEXT BOOK 1. Paul J. Deitel, Harvey M. Deitel, Abbey Deitel, “Internet and World Wide Web How To Program”, 5/E, Pearson Education, 2012. | | | |
| REFERENCES <ol style="list-style-type: none"> Robert W. Sebesta, “Programming the World Wide Web”, 8/E, Pearson Education, 2012. Chris Bates, “Web Programming – Building Intranet applications”, Wiley Publications, 3rd Edition, 2009. Jonathan Chaffer, Karl Swedberg, “Learning jQuery: Better interaction Design and Web Development with Simple JavaScript Techniques”, PACKT publishing, 2007 www.w3schools.com | | | |

| COURSE PLAN | | | |
|-----------------------------|--|-------|----------------|
| Module | Contents | Hours | Sem Exam Marks |
| I | Introduction to Computers and the Internet- Web Basics, Introduction to HTML5 - W3C HTML5 Validation Service, Headings, Linking, Images, Special Characters and Horizontal Rules, Lists, Tables, Forms, Internal Linking, meta elements, New HTML5 Form input Types, input and data list elements and autocomplete Attribute, Page-Structure Elements. | 6 | 15% |
| II | Introduction to Cascading Style Sheets -Inline Styles, Embedded Style Sheets, Conflicting Styles, Linking External Style Sheets, Positioning Elements - Absolute Positioning, z-index, Relative Positioning, span, Backgrounds, Element Dimensions, Box Model and Text Flow, Media Types, Drop-Down Menus | 6 | 15% |
| FIRST INTERNAL EXAMINATION | | | |
| III | JavaScript: Introduction to Scripting - Control Statements - if Selection Statement, if...else Selection Statement, while Repetition Statement, for Repetition Statement, switch Multiple-Selection Statement, do...while Repetition Statement, break and continue Statements, JavaScript: Functions- Function Definitions, Random Number Generation, JavaScript Global Functions, JavaScript: Arrays - Declaring, Allocating and Using Arrays, Passing Arrays to Functions, Sorting Arrays with sort, Searching Arrays with index Of, JavaScript: Objects: Math, String, Date, Boolean and Number, document Object. | 6 | 15% |
| IV | Document Object Model (DOM): Modeling a Document: DOM Nodes and Trees, Traversing and Modifying a DOM Tree, DOM Collections, Dynamic Styles, Using a Timer and Dynamic Styles to Create Animated Effects, JavaScript Event Handling: load Event, Event mouse move and the event Object, Form Processing with focus and blur, submit and reset, Event Bubbling | 6 | 15% |
| SECOND INTERNAL EXAMINATION | | | |

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|--------------------------|---|---|-----|
| V | XML: Introduction, XML Basics, Structuring Data, XML Namespaces, Document Type Definitions (DTDs), W3C XML Schema Documents, XML Vocabularies: MathML, Extensible Style sheet Language and XSL Transformations, Document Object Model (DOM). Ajax-Enabled Rich Internet Applications with XML and JSON: Introduction, Rich Internet Applications (RIAs) with Ajax, Using XML and the DOM , Creating a Full-Scale Ajax-Enabled Application | 9 | 20% |
| VI | Web Servers: Introduction, HTTP Transactions, Multitier Application Architecture, Client-Side Scripting versus Server-Side Scripting, Accessing Web Servers. Server Side Programming with PHP - Introduction, converting Between Data Types, Arithmetic Operators, Initializing and Manipulating Arrays, String Comparisons, String Processing with Regular Expressions, Form Processing and Business Logic, Using PHP to Process HTML5 Forms, Accessing MySQL Database with PHP, Using Cookies, Dynamic Content | 9 | 20% |
| END SEMESTER EXAM | | | |

QUESTION PAPER PATTERN

Maximum Marks: 100

Exam Duration: 3 hours

The question paper shall consist of Part A, Part B and Part C.

Part A shall consist of three questions of 15 marks each uniformly covering Modules I and II. The student has to answer any two questions (15×2=30 marks).

Part B shall consist of three questions of 15 marks each uniformly covering Modules III and IV. The student has to answer any two questions (15×2=30 marks).

Part C shall consist of three questions of 20 marks each uniformly covering Modules V and VI. The student has to answer any two questions (20×2=40 marks).

Note : Each question can have a maximum of 4 subparts, if needed