**E.G.S Pillay Engineering College – Nagapattinam**

**Department of MCA**

**Course plan – MC7202 /** **WEB PROGRAMMING ESSENTIALS**  **L T P C**

**3 0 0 3**

**Subject Code/Name** : MC7202 /WEB PROGRAMMING ESSENTIALS

**Class** : I MCA **Batch**  : 2015-2018

**Prescribed Hours** : 45 **Required Hours** : 45

**Staff Name** : Ms.K.Lakshmipriya **Semester** : II

**AIM:**

The objective of this course is to introduce the fundamental techniques on which high performance Java Technology is based, to develop the Project for the Customer it benefits of designing and coding options of used in Software Industry related.

**COURSE OBJECTIVES & OUTCOMES**:

|  |  |
| --- | --- |
| **Course objectives** | **Course outcomes** |
| 1. To evaluate the concepts and architecture of the World Wide Web. | 1. Ability to acquire knowledge about functionalities of world wide web |
| 1. To implement practice mark up languages | 1. Explore markup languages features and create interactive web pages using them. |
| 1. To implement embedded dynamic scripting on client side Internet Programming | 1. Learn and design Client side validation using scripting languages. |
| 1. To understand and practice web development techniques on client-side | 1. Acquire knowledge about Open source JavaScript libraries. 2. Able to design front end web page and connect to the back end databases. |

**PREREQUISITE**:

* + 1. **MC9227** Object Oriented Programming Lab

**COURSE MAPPING WITH POs & PEOs:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MC7202 /Web Programming Essentials** | | | | | | | | | | |
| Course designed by | Anna University, Chennai (2013 Regulations) | | | | | | | | | |
| **PO mapping with Course outcome** | a | b | c | d | e | f | g | h | i | j |
|  | i | ii | Iv,v |  |  |  | iii |  |  |
| PEO mapping with Course | Preparation | Core  competence | Breadth | Professionalism | Learning Environment | | | | | |
| X |  |  |  | X | | | | | |

**DETAILED LESSON PLAN**:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Unit 1: INTRODUCTION TO WWW**  Internet Standards – Introduction to WWW – WWW Architecture – SMTP – POP3 – File Transfer Protocol - Overview of HTTP, HTTP request – response –– Generation of dynamic web pages. | | | | | | | | | | | | | | | | | | |
| **Session No.** | **Topics to be covered** | | | | **Text book** | | | | | **Chapter No. and**  **Page No** | **Instruction delivery** | | | | | **Testing method** | **Course Objective** | **Programme outcome** |
| **Method** | | **Level** | | |
| 1 | Internet Standards | | | | Harvey & Paul Deitel & ssociates, Harvey Deitel and Abbey eitel, “Internet and World Wide Web – How To Program”, Fifth Edition, Pearson Education, 2011. | | | | | Chapter:1  Page no.: 23-52  Chapter:7, 11,13,17, 19  Page no.:  234-242,  321-349,  357-388,  393-424,  501-545 | PPT | | Understanding | | | Unit test | (1) To evaluate the concepts and architecture of the World Wide Web | (a) Ability to acquire knowledge about functionalities of world wide web |
| 2 | Introduction to WWW | | | | PPT | | Understanding | | | Discussion |
| 3 | WWW Architecture | | | | Discussion |
| 4 | SMTP | | | | PPT | | Understanding | | | Unit test |
| 5 | POP3 | | | | PPT | | Understanding | | | Discussion |
| 6 | File Transfer Protocol | | | | PPT | | Understanding | | | assignment |
| 7 | - Overview of HTTP, HTTP request | | | | PPT | | Understanding | | | Discussion |
| 8 | Generation of dynamic web pages. | | | | PPT | | Understanding | | | Assignment |
| **UNIT II: UI DESIGN**  **Markup Language (HTML):** Introduction to HTML and HTML5 - Formatting and Fonts –Commenting Code – Anchors – Backgrounds – Images – Hyperlinks – Lists – Tables – Frames - HTML Forms. **Cascading Style Sheet (CSS):** The need for CSS, Introduction to CSS – Basic syntax and structure -Inline Styles – Embedding Style Sheets - Linking External Style Sheets – Backgrounds – Manipulating text - Margins and Padding - Positioning using CSS. | | | | | | | | | | | | | | | | | | |
| **Session No.** | **Topics to be covered** | | **Text book** | | | | **Chapter No. and**  **Page No** | | | | **Instruction delivery** | | | | | **Testing method** | **Course Objective** | **Programme Outcome** |
| **Method** | | **Level** | | |  |
| 9 | Introduction to HTML and HTML5 | | Achyut S Godbole and Atul Kahate, “Web Technologies”, Second Edition, Tata McGraw Hill, 2012. | | | | Chapter 12  Page no.:  245-278 | | | | PPT | | understanding | | | Cycle test | (2)To implement practice mark up languages | (b)Explore markup languages features and create interactive web pages using them. |
| 10 | Formatting and Fonts Commenting Code | | Chapter 20  Page no.:  551-585 | | | | PPT | | Understanding | | | Unit test |
| 11 | Anchors Backgrounds | | Chapter 22  Page no.:592-634 | | | | PPT | | Understanding | | | Discussion |
| 12 | Images Hyperlinks Lists | | Chapter 23-28  Page no.:641- 926 | | | | PPT | | Understanding | | | Discussion |
| 13 | need for CSS, Introduction to CSS | | Chapter 23  Page no.:  648-659 | | | | Board & chalk | | Understanding | | | Assignment |
| 14 | Inline Styles Embedding Style Sheets | | Chapter 25  Page no.:  689-704 | | | | Board & chalk | | Understanding | | | Assignment |
| 15 | Linking External Style Sheets | | Chapter 26  Page no:  708-729 | | | | Board & chalk | | Understanding | | | Discussion |
| 16 | Backgrounds | | Chapter 27  Page no:  737-751 | | | |
| 17 | Margins and Padding | | Chapter 23  Page no:  660-671 | | | | PPT | | Understanding | | | Discussion |
| 18 | Manipulating text | | Chapter 33  Page no:  1024-1045 | | | | PPT | | Understanding | | | Unit test |
| 19 | Positioning using CSS | | Chapter 34  Page no:  1057-1089 | | | | PPT | | Understanding | | | Unit test |  |
| **UNIT III:**  **INTRODUCTION TO JAVASCRIPT**  Introduction - Core features - Data types and Variables - Operators, Expressions, and Statements -Functions - Objects - Array, Date and Math related Objects - Document Object Model - Event Handling - Controlling Windows & Frames and Documents - Form handling and validations. | | | | | | | | | | | | | | | | | | |
| **Session No.** | | **Topics to be covered** | | **Text book** | | | | **Chapter No. and**  **Page No** | | | | **Instruction delivery** | | | **Testing method** | | **Course Objective** | **Programme outcome** |
| **Method** | | **level** |
| 20 | | Introduction | | Thomas A Powell, Fritz Schneider, “JavaScript: The Complete Reference”, Third Edition, Tata  McGraw Hill, 2013. | | | | Chapter 1  Pg 7-18 | | | | PPT | | Understanding | Unit test | | (3)To implement embedded dynamic scripting on client side Internet Programming | (c)Learn and design Client side validation using scripting languages |
| 21 | | Core features | | Chapter 1,2  Pg 19-24,  15-28 | | | | PPT | | Understanding | Short answer test | |
| 22 | | Data types and Variables | | PPT | | Apply | Discussion | |
| 23 | | Operators, Expressions, and Statements | | Chapter 1,4  Pg 26-31  57-74 | | | | PPT | | Apply | Discussion | |
| 24 | | Objects- Document Object Model | | Chapter 2,7  Pg 69-112  184-204 | | | | PPT | | Apply | Assignment | |
| 25 | | Array, Date and Math related Objects | | Chapter 6  Pg 135-182 | | | | Board & chalk | | Apply | Assignment | |
| 26 | | Event Handling | | Chapter 9  Pg 300-352 | | | | Board & chalk | | Apply | Cycle test | |
| 27 | | Controlling Windows & Frames and Documents | |
| 28 | | Form handling and validations | | Chapter 10  Pg 361-392 | | | | Board & chalk | | Apply | Cycle test | |
| **Unit IV: ADVANCED JAVASCRIPT**  Browser Management and Media Management – Classes – Constructors – Object-Oriented Techniques in JavaScript – Object constructor and Prototyping - Sub classes and Super classes –JSON - jQuery and AJAX | | | | | | | | | | | | | | | | | | |
| **Session No.** | | **Topics to be covered** | | | | **Text book** | | | **Chapter No. and**  **Page No** | | | **Instruction delivery** | | | **Testing method** | | **Course Objective** | **Programme outcome** |
| **method** | | **level** |  | |
| 27,28 | | Browser Management and Media Management | | | | David Flanagan, “JavaScript: The Definitive Guide, Sixth Edition”, O'Reilly Media, 2011 | | | Chapter  11,16,22,23,24  Pg  405-456  589-603  687-753,  824-845  853-881 | | | Board & chalk | | Analysis | Assignment | | To understand and practice web development techniques on client-side | 1. Acquire knowledge about Open source JavaScript libraries. |
| 28 | | Classes | | | | Board & chalk | | Apply | Cycle test | |
| 29 | | Object-Oriented Techniques in JavaScript | | | | PPT | | Apply | Cycle test | |
| 30,31 | | Constructors | | | | PPT | | Apply | Cycle test | |
| 32,33 | | Object constructor and Prototyping - Sub classes and Super classes | | | | PPT | | Apply | Assignment | |
| 34,35 | | JSON | | | | Board & chalk | | Apply | Assignment | |
| 36,37 | | jQuery and AJAX | | | | Chapter 16  Pg 605-621 | | | ppt | | Apply | Cycle test | |
| **UnitV: PHP**  Introduction - How web works - Setting up the environment (LAMP server) - Programming basics -Print/echo - Variables and constants – Strings and Arrays – Operators, Control structures and looping structures – Functions – Reading Data in Web Pages - Embedding PHP within HTML – Establishing connectivity with MySQL database. | | | | | | | | | | | | | | | | | | |
| **Session No.** | | **Topics to be covered** | | | | **Text book** | | | **Chapter No. and**  **Page No** | | | **Instruction delivery** | | | **Testing method** | | **Course Objective** | **Programme outcome** |
| **Method** | | **Level** |
| 37,38 | | Introduction - How web works | | | | Steven Holzner, “The Complete Reference - PHP”, Tata McGraw Hill, 2008 | | | Chapter 18  Pg  624-637 | | | Board & chalk | | Knowledge | Cycle test | | To understand and practice web development techniques on client-side | Able to design front end web page and connect to the back end databases |
| 39 | | Setting up the environment (LAMP server) | | | | Chapter 19  Pg  639-645 | | | PPT | | Apply | Cycle test | |
| 40 | | Programming basics -Print/echo | | | | Chapter 31  Pg  971-993 | | | PPT | | Apply | Unit test | |
| 41 | | Variables and constants | | | |
| 42 | | Operators, Control structures and looping structures | | | | Chapter 27  Pg  892-921 | | | PPT | | Apply | Model test | |
| 43 | | Reading Data in Web Pages | | | | Chapter 28  Pg  924-951 | | | PPT | | Apply | Cycle test | |
| 44 | | Embedding PHP within HTML | | | | Chapter 9  Pg 300-352 | | | Board & chalk | | Apply | Cycle test | |
| 45 | | – Establishing connectivity with MySQL database | | | | Chapter 10  Pg 361-392 | | | Board & chalk | | Apply | Model test | |

**REFERENCE BOOKS:**

1. Harvey & Paul Deitel & Associates, Harvey Deitel and Abbey Deitel, “Internet and World Wide Web - How To Program”, Fifth Edition, Pearson Education, 2011.

2. Achyut S Godbole and Atul Kahate, “Web Technologies”, Second Edition, Tata McGraw Hill, 2012.

3. Thomas A Powell, Fritz Schneider, “JavaScript: The Complete Reference”, Third Edition, Tata McGraw Hill, 2013.

**GAP ANALYSIS**

**Content beyond syllabus:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Topic** | **Hours** | **Mode of delivery** |
| **1.** | Java Swing | **1** | ppt |
| **2.** | Netbeans | **1** | ppt |

**Content beyond syllabus mapping with PEO and PO**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MC7202 /Web Programming Essentials** | | | | | | | | | | |
| PO mapping with Content beyond syllabus | a | b | c | d | e | f | g | h | i | j |
|  | i | ii | v |  | iv |  | iii |  |  |
| PEO mapping with Content beyond syllabus | Preparation | Core  competence | Breadth | Professionalism | Learning Environment | | | | | |
| X | X |  |  | X | | | | | |

**Internal marks Assessment Method**

**Test : 10**

**Attendance : 5**

**Assignment : 5**

**Total : 20**

**ASSIGNMENTS**

|  |  |
| --- | --- |
| **A. No** | **Assignment Titles** |
| **I**  (I UNIT) | 1.Explain any 3 Web page editors.  2.Explain Web security in WWW.  3.Explain File formats i) Audio ii) Text iii) Video iv)Picture  4.Explain how to avoid email viruses .  5.Explain principles of exchanging email. |
| **II**  (II &III UNIT) | 1.Notes on Packages.  2.Notes on Interface.  3 Explain Exception Handling.  4.Explain if,if else ladder ,looping statements.  5.Explain switch case,return with ex. |
| **III**  (IV & V UNIT) | 1.What is AWT packages with example  2 Brief Garbage Collection  3.Write Multithreading  4.Notes on painting  5.Example of applet lifecycle |
| **IV** | 1.Explain concept of java Swing  2. Explain applet,icons and lables,text,button in java swing.  3. Explain check box,radio buttons,combo boxes in java swing.  4. Notes on Netbeans.  5. Example of netbeans. |

**Course Incharge signature HOD Signature**