**Mar Athanasius College of Engineering**

**KOTHAMANGALAM,KERALA,INDIA. PIN 686 666**

**COURSE INFORMATION SHEET**

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| PROGRAMME: COMPUTER SCIENCE AND ENGINEERING | DEGREE: B TECH |
| COURSE: WEB TECHNOLOGIES | SEMESTER: 6 CREDITS: 3 |
| COURSE CODE: CS368 | COURSE TYPE: ELECTIVE |
| COURSE AREA/STREAM: WEB TECHNOLOGIES | CONTACT HOURS: 3 hours/Week. |
| CORRESPONDING LAB COURSE CODE (IF ANY):NILL | LAB COURSE NAME:NILL |

**SYLLABUS:**

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| --- | --- | --- |
| MODULE | DETAILS | HOURS |
| I | Introduction to the Internet: The World Wide Web, Web Browsers, Web Servers, Uniform Resource Locators, Multipurpose Internet Mail Extensions, The Hypertext Transfer Protocol. Common Gateway Interface(CGI), Content Management System – Basics Case Study: Apache Server, WordPress. | 6 |
| II | Introduction to HTML/XHTML : Origins and Evolution of HTML and XHTML, Basic Syntax of HTML, Standard HTML Document Structure, Basic Text Markup, Images, Hypertext Links, Lists, Tables, Forms, HTML5, Syntactic Differences between HTML and XHTML | 7 |
| III | Introduction to Styles sheets and Frameworks Cascading Style Sheets: Levels of Style Sheets - Style Specification Formats, Selector Forms, Property-Value Forms, Font Properties, List Properties, Alignment of Text, Color, The Box Model, Background Images, The span and div Tags. Frameworks: Overview and Basics of Responsive CSS Frameworks – Bootstrap | 6 |
| IV | Introduction to JavaScript and jQuery The Basics of JavaScript: Overview of JavaScript, Object Orientation and JavaScript, General Syntactic CharacteristicsPrimitives, Operations, and Expressions, Screen Output and Keyboard Input, Control Statements, Object Creation and Modification,Arrays, Functions. Callback Functions, Java Script HTML DOM. Introduction to jQuery: Overview and Basics. | 7 |
| V | Introduction to Data Interchange Formats XML: The Syntax of XML, XML Document Structure, Namespaces, XML Schemas, Displaying Raw XML Documents, Displaying XML Documents with CSS, XSLT Style Sheets, XML Applications. JSON(Basics Only): Overview, Syntax, Datatypes, Objects, Schema, Comparison with XML. | 8 |
| VI | Introduction to PHP: Origins and Uses of PHP, Overview of PHP - General Syntactic Characteristics - Primitives, Operations, and Expressions - Control Statements, Arrays, Functions, Pattern Matching, Form Handling, Cookies, Session Tracking. | 8 |
| TOTAL HOURS | | 42 |

**TEXT/REFERENCE BOOKS:**

|  |  |
| --- | --- |
| T/R | BOOK TITLE/AUTHORS/PUBLICATION |
| T | 1. P. J. Deitel, H.M. Deitel, Internet &World Wide Web How To Program, 4/e, Pearson International Edition 2010.  2. Robert W Sebesta, Programming the World Wide Web, 7/e, Pearson Education Inc., 2014. |
| R1 | Bear Bibeault and Yehuda Katz, jQuery in Action, Second Edition, Manning Publications.[Chapter 1] Black Book, Kogent Learning Solutions Inc. 2009. |
| R2 | Bob Boiko, Content Management Bible, 2nd Edition, Wiley Publishers. [Chapter 1, 2] |
| R3 | Chris Bates, Web Programming Building Internet Applications, 3/e, Wiley India Edition 2009. |
| R4 | Dream Tech, Web Technologies: HTML, JS, PHP, Java, JSP, ASP.NET, XML, AJAX |
| R5 | Jeffrey C Jackson, Web Technologies A Computer Science Perspective, Pearson Education Inc. 2009. |
| R6 | Lindsay Bassett, Introduction to JavaScript Object Notation: A To-the-Point Guide to JSON 1st Edition, O’Reilly.[Chapter 1,2,3,4] |
| R7 | Matthew MacDonald, WordPress: The Missing Manual, 2nd Edition, O'Reilly Media. [Chapter 1] |

**COURSE OBJECTIVES:**

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| --- | --- |
|  | • To impart the design, development and implementation of Dynamic Web Pages.  • To develop programs for Web using Scripting Languages.  • To give an introduction to Data Interchange formats in Web. |

**COURSE OUTCOMES:**

|  |  |  |  |
| --- | --- | --- | --- |
| SNO | DESCRIPTION | PO  MAPPING | PSO  MAPPING |
|  | The Students will be able to |  |  |
| 1 | Understand different components in web technology and to know about CGI and CMS | 1,2,3,4 | 1,2,4 |
| 2 | Develop interactive Web pages using HTML/XHTML. | 1,3,4,5 | 1,2,3 |
| 3 | Present a professional document using Cascaded Style Sheets. | 1,2,3 | 1,4 |
| 4 | Construct websites for user interactions using JavaScript and JQuery | 1,3 | 1 |
| 5 | Know the different information interchange formats like XML and JSON | 1,2,3,9,10,12 | 1,2,4 |
| 6 | Develop Web applications using PHP. | 1,8,7,12,6 | 1,3 |

**GAPS IN THE SYLLABUS - TO MEET INDUSTRY/PROFESSION REQUIREMENTS:**

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| --- | --- | --- |
| SNO | DESCRIPTION | PROPOSED  ACTIONS |
| 1 | To Familiarize with different frameworks used in php | Conducted a 2 hr session on different frameworks |
| 2 | To Familiarize with object oriented concepts of php | Conducted a 2 hr session on object oriented concepts of php |

**TOPICS BEYOND SYLLABUS/ADVANCED TOPICS/DESIGN:**

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| --- | --- |
| 1 | Php frameworks like codeignitor, yii etc |
| 2 | CSS3 and CSS4 |

**WEB SOURCE REFERENCES:**

|  |  |
| --- | --- |
| 1 | www.w3.org/CGI/ |
| 2 | |  | | --- | | old.tree.ro/en/strategy-white-papers/content-management-systems.pdf | |
| 3 | |  | | --- | | httpd.apache.org/download.cgi | |
| 4 | |  | | --- | | https://alistapart.com/article/frameworks | |
| 5 | |  | | --- | | http://getbootstrap.com/css/ | |  | |
| 6 | https://www.w3.org/TR/WD-DOM/introduction.html |

**DELIVERY/INSTRUCTIONAL METHODOLOGIES:**

|  |  |  |  |
| --- | --- | --- | --- |
| CHALK & TALK | STUD. ASSIGNMENT | ☐ WEB RESOURCES |  |
| LCD/SMART BOARDS |  STUD. SEMINARS | ☐ ADD-ON COURSES |  |

**ASSESSMENT METHODOLOGIES-DIRECT**

|  |  |  |  |
| --- | --- | --- | --- |
|  ASSIGNMENTS | STUD. SEMINARS |  TESTS/MODEL EXAMS | UNIV. EXAMINATION |
| ☐ STUD. LAB PRACTICES |  STUD. VIVA | ☐ MINI/MAJOR PROJECTS | ☐ CERTIFICATIONS |
| ☐ ADD-ON COURSES | ☐ OTHERS |  |  |

**ASSESSMENT METHODOLOGIES-INDIRECT**

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| --- | --- |
|  ASSESSMENT OF COURSE OUTCOMES (BY FEEDBACK, ONCE) | ☐ STUDENT FEEDBACK ON FACULTY (TWICE) |
| ☐ ASSESSMENT OF MINI/MAJOR PROJECTS BY EXT. EXPERTS | ☐ OTHERS |

**Prepared by Approved by**

**Chaithanya C Dr.Surekha Mariam Varghese**