**DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY**

**Lab Course Data Sheet**

Name of the Program : B.Tech in Computer Science and Engineering

Academic Year : 2022-23

Year & Semester : II Year II Semester Section: A No of Credits : 1.5

Name of the Course : Web Application Development using Full Stack(Skill Oriented Lab)

Code: R202205A

Course : Allied Regulation : R20

Course Area/Module : Programming No of students registered : 69

Name of the Faculty :Mrs.B.Alekhya Designation: Asst.Professor

**Preface of the course:**

* Need to have basic knowledge in opening a web page.
* Dynamic Web projects could be built using java script
* Using Java Script All Control statements, events ,pop-ups,date and time format and array applications developed

**List of Experiments as per Curriculum:**

1) Introduction to JavaScript

2) Applying JavaScript (internal and external)

3) Understanding JS Syntax

4) Introduction to Document and Window Object

5) Variables and Operators

6) Data Types and Num Type Conversion

7) Math and String Manipulation

8) Objects and Arrays

9) Date and Time

10) Conditional Statements

**Prerequisites for the Course:**

* Need to have basic knowledge about all the tokens.
* Need to know about basic level programming language.
* Need to have basic knowledge about debugging.

**COURSE OBJECTIVES**

At the end of the Course/Subject, the students will:

|  |  |  |  |
| --- | --- | --- | --- |
| Sno. | Course Objectives (Cobs) | COs\* | Remarks |
| 1 | Learn and understand about java script | R202205A.1 |  |
| 2 | Learn and apply various data types and operators using java script | R202205A.2 |  |
| 3 | Learn and apply control statements and functions using java script | R202205A.3 |  |

**COURSE OUTCOMES**

At the end of the Course/Subject, the students will be able to:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | Course Outcomes(COs) | POS\* | PSOs\* | **Bloom's Taxonomy & Level** |
| 1 | Develop of the major Web application tier- Client side development | 1,2,3,12 | 1,2 | Applying(L1) |
| 2 | Participate in the active development of cross-browser applications through JavaScript | 1,2,3,12 | 1,2 | Applying(L3) |
| 3 | Develop JavaScript applications that transition between states | 1,2,3,12 | 1,2 | Applying(L3) |

**Course Outcomes vs POS**\***Mapping:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Courses Out Comes | P01 | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 | P10 | P11 | P12 |
| R202205A.1 | 3 | 3 | 3 | - | - | - | - | - | 3 | - | - | 3 |
| R202205A.2 | 3 | 3 | 3 | - | - | - | - | - | 3 | - | - | 3 |
| R202205A.3 | 3 | 3 | 3 | - | - | - | - | - | 3 | - | - | 3 |
| Total | 9 | 9 | 9 | - | - | - | - | - | 9 | - | - | 9 |
| Average | 3 | 3 | 3 | - | - | - | - | - | 3 | - | - | 3 |

**Justifications Mapping of Course Outcomes with Program Outcome**

P01: R202205A.1, R202205A.2, R202205A.3 are strongly mapped gain basic knowledge of java script

PO2: R202205A.1, R202205A.2, R202205A.3 are strongly mapped as learn how to analyze java script applications

PO3: R202205A.1, R202205A.2, R202205A.3 are strongly mapped as Design the active development of cross-browser applications through JavaScript

PO9: R202205A.1, R202205A.2, R202205A.3 are strongly mapped as to develop real world applications

PO12: R202205A.1, R202205A.2, R202205A.3 are strongly mapped as able to learn concepts regarding new technologies to find solutions

**Course Outcomes vs PSOs Mapping:**

|  |  |  |
| --- | --- | --- |
| Courses Out Comes | PSO1 | PSO2 |
| R202205A.1 | 3 | 2 |
| R202205A.2 | 3 | 2 |
| R202205A.3 | 3 | 2 |
| Total | 9 | 6 |
| Average | 3 | 2 |

**Justification of Mapping of Course Outcomes with Program Specific Outcomes:**

1. Full Stack development using java script lab is used to design solutions for complex problems by using latest engineering tools and operating system like ,Linux,Windows etc
2. Full Stack development using java script lab is used to  emerging technologies and modern tools.

**Mention Gaps Identified (Missing Experiments of syllabus / Industry/Profession Requirements or POs) if any :**

|  |  |  |
| --- | --- | --- |
| S No | Description | Proposed action |
| 1 | NO |  |
| 2. |  |  |

**Experiments beyond Syllabus/Advanced Topics/Design:**

**Teaching & Learning Resources:**

1. Java Script & jQuery the missing manual, 2nd Edition, David sawyer mcfarland, O’Reilly, 2011

**Websites:**

1. <https://www.javatpoint.com/javascript-tutorial>
2. https://www.geeksforgeeks.org/javascript/

**Handouts:**

**Delivery/Instructional Methodologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| * Chalk & Talk | * Student Assignment | ☐ Web Resources | ☐Nptel/Oths |
| ☐Lcd/Smartboards | ☐ Stud. Seminars | ☐ Add-OnCourses | ☐Webniars |

**Assessment Methodologies-Direct**

|  |  |  |  |
| --- | --- | --- | --- |
| ☐ Assignments | ☐Stud. Seminars | ☐Tests/Modelexams | ☐Univ.Examination |
| ☐Studlabpractices | * Stud. Viva | ☐ Mini/Major Projects | ☐ Certifications |
| ☐ Add-On Courses | ☐ Others |  |  |

**Assessment Methodologies-Indirect**

|  |  |
| --- | --- |
| ☐ Assessment of Course Outcomes (By Feedback, Once) | * Student Feedback On Faculty (Twice) |
| ☐ Assessment Of Mini/Major Projects By Ext. Experts | ☐ Others |

**Innovative Teaching/Learning/Evaluation Processes:**

PPT

**Course Attainment Target (to be collected from department):**

|  |  |  |
| --- | --- | --- |
| **Set Target %** | **INTERNAL** | **EXTERNAL** |
| **55** | **45** |
| **Attainment Level 1** | **50% or less number of students scoring more than 55% marks in internal examination** | **50% or less number of students scoring more than 45% marks in External examination** |
| **Attainment Level 2** | **51% to 69% of students scoring more than 55% marks in internal examination** | **51% to 69% of students scoring more than 45% marks in External examination** |
| **Attainment Level 3** | **70% & above number of students scoring more than 55% marks in internal examination** | **70% & above number of students scoring more than 45% marks in External examination** |

Signature of Course Coordinator/Faculty Signature of HOD

Date: Date: