Program : **Diploma in Computer Engineering / Cyber Forensics and Information Security**	
Course Code : **3138**	Course Title: **Web Technology Lab**
Semester : **3**	Credits: **2.5**
Course Category: **Program Core**	
Periods per week: **4 (L:1 T:0 P:3)**	Periods per semester: **60**

Course Objectives:

- Provide hands-on experience for the students with the basic skills on tools, languages and technologies related to website development using HTML, CSS & JavaScript.
- Understand the development and implementation of simple dynamic websites.

Course Prerequisites:

Topic	Course Code	Course Name	Semester
Basic Knowledge of IT skills and basic problem solving		Introduction to IT systems	I
Programming in C		Problem solving and Programming	II

Course Outcomes :

On completion of the course, the student will be able to:

COn	Description	Duration (Hours)	Cognitive Level
CO1	Develop simple web pages using HTML	19	Applying
CO2	Develop web pages using CSS	11	Applying
CO3	Construct dynamic documents with JavaScript	16	Applying
CO4	Design and develop a simple website using HTML, CSS and JavaScript	10	Applying
	Lab Exam	4	

CO – PO Mapping

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3			3			
CO2	3			3			
CO3	3			3			
CO4	3	3	3	3	3	3	3

3-Strongly mapped, 2-Moderately mapped, 1-Weakly mapped

Course Outline:

Module Outcomes	Name of Experiment	Duration (Hours)	Cognitive Level
CO1	**Develop simple web pages using HTML**		
M1.01	Illustrate Web Browsers, Search Engines and Protocols	1L + 1P	Understanding
M1.02	Develop simple HTML pages using Basic HTML Markup	1L + 3P	Applying
M1.03	Make use of HTML lists, hyperlinks and images, Data Table, frames in Web pages	3L + 4P	Applying
M1.04	Develop web pages with Forms and its controls	2L + 4P	Applying
CO2	**Develop web pages using CSS**		
M2.01	Explain CSS selectors, Inline, Embedded and External Style Sheets	2T	Understanding
M2.02	Develop web pages using of Inline, Embedded and External Style Sheets	6	Applying
M2.03	Apply CSS properties – font, color, background, list, link, text, border in web pages	3	Applying
	Lab Exam – I	2	
CO3	**Construct dynamic documents with JavaScript**		
M3.01	Build functions with JavaScript and make us of built-in function in JavaScript	2L+3P	Applying
M3.02	Model Event Handling using JavaScript	2L+3P	Applying
M3.03	Plan form validation using JavaScript	2L+4P	Applying

CO4	**Design and develop a simple website using HTML, CSS and JavaScript**		
M4.01	Open Ended Experiments** - Design and develop a simple website using HTML, CSS and JavaScript	10	Applying
	Lab Exam II	2	

**** - Sample Open Ended Experiments**

(Not for End Semester Examination but compulsory to be included in Continuous Internal Evaluation. Students can do open ended experiments as a group of 2-3. There is no duplication in experiments between groups. Open ended experiments should include the concepts of HTML, CSS & JavaScript)

Example : Develop a Web Site for your College

Text / Reference:

T/R	Book Title/Author
T1	Robert W Sebesta, **Programming with World Wide Web**, 7th ed., Pearson Education, New Delhi, 2009
R1	John Duckett, **Beginning Web Programming with HTML, XHTML, CSS & JavaScript**, Second Edition , Wiley DreamTech
R2	Powell And Thomas, **HTML & CSS: The Complete Reference** , Mcgraw Hill
R3	Laura Lemay Rafe Coburn Jennifer Kyrnin **,Sams Teach Yourself HTML, CSS & JavaScript Web Publishing in One Hour a Day**, Seventh Edition, Pearson Education

Online Resources:

Sl.No	Website Link
1	https://www.w3schools.com/
2	https://html-css-js.com/
3	https://www.tutorialspoint.com/index.htm