

**GLS UNIVERSITY**  
**Bachelor of Computer Applications (BCA)**  
**(Core Course)**  
**Semester I**

**0301103 Introduction to HTML5, CSS and Javascript**

**1. Course Objective:**

- To understand basic knowledge of various HTML5 tags.
- To gain the knowledge of HTML5 tables, forms and frames.
- To provide the understanding of CSS and Javascript.
- To develop dynamic web pages.
- Understand functions and validations using Javascript.

**2. Course Duration:**

The course will have sessions which are divided into five modules. Each module consists of nine sessions of 60 minutes each and carries a weightage of 20%.

**3. Course Contents:**

Module No	Modules/Sub-Modules	No. of Sessions	Weightage
I	<b>Fundamentals of HTML5</b> <ul style="list-style-type: none"><li>• Basic Tags and Attribute &lt;html&gt;,&lt;head&gt;&lt;title&gt;&lt;body&gt;&lt;h1&gt;to&lt;h6&gt;,&lt;hr&gt;,&lt;br&gt; , &lt;p&gt;,&lt;div&gt;,&lt;u&gt;,&lt;b&gt;,&lt;i&gt;,&lt;img&gt;,&lt;a&gt;</li><li>• Inserting Special Characters</li><li>• The List Tag</li><li>• Link Tag</li><li>• Image Map</li></ul> <b>Table</b> <ul style="list-style-type: none"><li>• Creation</li><li>• Cell-Spanning</li><li>• Cell Formatting</li><li>• Table Attributes</li></ul>	9	20%
II	<b>Forms</b> <ul style="list-style-type: none"><li>• Creating form</li><li>• Adding controls to HTML form<ul style="list-style-type: none"><li>◦ Using &lt;input&gt; to add controls</li><li>◦ Types of input tag: button, checkbox, password, radio, submit, reset, text</li></ul></li></ul>	9	20%

	<ul style="list-style-type: none"> <li>○ Adding Text area</li> <li>○ Adding a selection control</li> <li>○ Grouping the controls</li> <li>• <b>Frames</b> <ul style="list-style-type: none"> <li>○ &lt;frame&gt;,&lt;frameset&gt;,&lt;noframes&gt;</li> </ul> </li> <li>• <b>Introduction to iframe</b></li> <li>• <b>HTML5 Formatting Tags</b> <ul style="list-style-type: none"> <li>○ &lt;article&gt;,&lt;mark&gt;</li> <li>○ &lt;menu&gt;,&lt;menuitem&gt;</li> <li>○ &lt;nav&gt;</li> <li>○ &lt;header&gt;</li> <li>○ &lt;footer&gt;</li> <li>○ &lt;time&gt;</li> <li>○ &lt;tooltip&gt;</li> <li>○ &lt;kbd&gt; , &lt;sam&gt; , &lt;em&gt; , &lt;var&gt; , &lt;code&gt;</li> </ul> </li> </ul>		
III	<b>Cascading Style Sheet (CSS)</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• CSS class &amp; ID selector</li> <li>• CSS syntax</li> <li>• Types of Style sheets <ul style="list-style-type: none"> <li>○ External</li> <li>○ Internal</li> <li>○ Inline</li> </ul> </li> </ul> <b>CSS Properties and Attributes</b> <ul style="list-style-type: none"> <li>• Text Properties and Attributes</li> <li>• Font Properties</li> <li>• CSS Padding</li> <li>• CSS Color</li> <li>• CSS Links</li> <li>• List Properties</li> <li>• Table Properties</li> </ul>	9	20%
IV	<b>Introduction to JavaScript</b> <ul style="list-style-type: none"> <li>• Introduction of JavaScript</li> <li>• <b>Types of JavaScript</b> <ul style="list-style-type: none"> <li>○ External</li> <li>○ Internal</li> </ul> </li> <li>• <b>Basic Programming Techniques</b> <ul style="list-style-type: none"> <li>○ Variable Declaration</li> <li>○ Operators and Expression <ul style="list-style-type: none"> <li>▪ Arithmetic Operators</li> <li>▪ Logical Operators</li> <li>▪ Comparison Operators</li> <li>▪ String Operator</li> </ul> </li> </ul> </li> </ul>	9	20%

	<ul style="list-style-type: none"> <li>• <b>Function</b> <ul style="list-style-type: none"> <li>◦ Declaring function</li> <li>◦ Place of declaration</li> <li>◦ Passing Parameters</li> <li>◦ Concept of Returning Value</li> </ul> </li> <li>• <b>Conditional and Looping Statements</b> <ul style="list-style-type: none"> <li>◦ If-else statements</li> <li>◦ For loop and While loop</li> </ul> </li> </ul>		
V	<b>Event Handling and Validating Forms</b> <ul style="list-style-type: none"> <li>• Events and working <ul style="list-style-type: none"> <li>◦ onchange ( )</li> <li>◦ onclick ( )</li> <li>◦ onmouseover ( )</li> <li>◦ onmouseout ( )</li> <li>◦ onkeydown ( )</li> <li>◦ onload ( )</li> <li>◦ onblur ( )</li> <li>◦ onfocus ( )</li> <li>◦ onselect ( )</li> </ul> </li> <li>• Form Object and Validation with Form <ul style="list-style-type: none"> <li>◦ Working with Form Object</li> <li>◦ Properties of Form Element</li> <li>◦ Methods of Form Element</li> <li>◦ Validation With Text Element</li> <li>◦ Validation With Password Element</li> <li>◦ Validation With Button Element</li> <li>◦ Validation With Submit Element</li> </ul> </li> </ul>	9	20%

#### 4. Teaching Methods:

The following pedagogical tools will be used to teach this course:

- Lectures and Discussions
- Video, e-learning
- Assignments and Presentations

#### 5. Evaluation:

The students will be evaluated on a continuous basis and broadly follow the scheme given below:

1.	Assignments / Presentations/ Quizzes	30% (Internal Assessment)
2.	Internal Examination	20%(Internal Assessment)

3.	External Examination(University Exam)	50% (External Assessment)

## 6. Basic Text Books:

Sr. No	Author/s	Name of the book	Publisher	Edition
T1	Jason Cranford Teague	DHTML and CSS Advanced	Pearson	Latest
T2	ISRD Group	Internet Technology and Web Design	Tata McGraw Hills	2011
T3	Ivan Byross	HTML, JavaScript, DHTML and PHP	BPB Publication	4 <sup>th</sup> Edition

## 7. Reference Books:

Sr. No	Author/s	Name of the book	Publisher	Edition
R1	Kogent Learning Solution Inc.	HTML 5 in Simple Steps	Dreamtech Press	2013
R2	Kogent Learning Solution Inc.	A Complete Guide to Internet and Web Programming	Dreamtech Press	2010
R3	Casario	HTML5 Solutions	FriendsofED Apress Company	2011

## 8. List of E - Resources:

The students will have to refer the following websites in order to get relevant topic / information pertaining to the subject.

- <http://www.w3schools.com>
- <http://www.tutorialspoint.com>
- <https://www.geeksforgeeks.org/html-tutorials/>
- <https://www.javatpoint.com/html-tutorial>
- <https://www.bitdegree.org/learn/html5-tags>

## 9. Session Plan:

Session No.	Topics/Chapters
1-5	Fundamental of HTML, Basic Tags and Attributes , Formatting Tags, Inserting Special Characters
6	List Tags,Link Tag
7	Image Tag & its attributes
8,9	Table and its properties
10-13	Creating Forms and adding controls to HTML form
14	Different frames and introduction to iframe
15	Discussion related to <article>,<mark> , <menu>,<menuitem>
16	Discussion related to <nav> , <header> ,<footer> ,<time>
17,18	<kbd> , <sam> , <em> , <var> , <code> ,<Doctype> ,<meta charset >
19-24	CSS introduction and Types of stylesheets
24-27	CSS properties and Attributes
28-30	Introduction to Javascript and Types of it.
31-34	Function declaration and usage
35-36	Conditional and Looping statements
37-41	Event Handling and Validating forms
42-45	Form object and validation with form

## 10. Learning Outcomes:

**Upon the completion of this course, students will be able to:**

- Understand various HTML tags easily.
- Develop web pages using HTML5 tags, lists, tables, forms and frames.
- Explore the concepts of CSS and Javascript.
- Use functions and validations with the help of Javascript.
- Understand the concepts for creating dynamic web pages.