Course Title: Computer Multimedia & Animation	Course code: **21BCA3C11L**
Total Contact Hours: 42	Course Credits: 03
Formative Assessment or IA Marks: 40	Duration of SEE/Exam: 02 Hours
Summative Assessment Marks: 60	

Course Outcomes (COs):

At the end of the course, students will be able to:

- Write a well-designed, interactive Web site with respect to current standards and practices.
- Demonstrate in-depth knowledge of an industry-standard multimedia development tool and its associated scripting language.
- Determine the appropriate use of interactive versus standalone Web applications.

DSC11: Computer Multimedia & Animation

Unit	Description	Hours
1	Web Design: Origins and evolution of HTML, Basic syntax, Basic text markup, Images, Lists, Tables, Forms, Frame, Overview and features of HTML5. CSS: Introduction, Levels of style sheets, Style specification formats, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, The and tags; Overview and features of CSS3. JavaScript: Object orientation and JavaScript; General syntactic characteristics; Primitives, operations, and expressions; Screen output and keyboard input.	10
2	Animation: What is an Animation? The Start and End States, Interpolation, Animations in HTML. All About CSS Animations, Creating a Simple Animation, Detailed Look at the CSS Animation Property, Keyframes, Declaring Multiple Animations, Wrap-up. All About CSS Transitions, Adding a Transition, Looking at Transitions in Detail, The Longhand Properties, Longhand Properties vs. Shorthand Properties, Working with Multiple Transitions.	09
3	HTML5 – SVG: Viewing SVG Files, Embedding SVG in HTML5, HTML5 − SVG Circle, HTML5 − SVG Rectangle, HTML5 − SVG Line, HTML5 − SVG Ellipse, HTML5 − SVG Polygon, HTML5 − SVG Polyline, HTML5 − SVG Gradients, HTML5 − SVG Star.	08
4	HTML5 – CANVAS: The Rendering Context, Browser Support, HTML5 Canvas Examples, Canvas - Drawing Rectangles, Canvas - Drawing Paths, Canvas - Drawing Lines, Canvas - Drawing Bezier Curves, Canvas - Drawing Quadratic Curves, Canvas - Using Images, Canvas - Create Gradients,	08
5	HTML5 - Styles and Colors, Canvas - Text and Fonts, Canvas - Pattern and Shadow, Canvas - Save and Restore States, Canvas - Translation, Canvas - Rotation, Canvas - Scaling, Canvas - Transforms, HTML5 Canvas - Composition, Canvas – Animations.	07

References:

1. The Complete Reference HTML and CSS, 5th Edition, Thomas A Powell, 2017.
2. Animation in HTML, CSS, and JavaScript, Kirupa Chinnathambi, 1st Edition, Createspace Independent Pub, 2013.
3. https://www.w3.org/Style/CSS/current-work#CSS3
4. http://bedford-computing.co.uk/learning/cascading-style-sheets-css/

Year	II	**Course Code:** 21BCA4C11P	**Credits**	02
Sem.	III	**Course Title: Computer Multimedia & Animation LAB**	**Hours**	40
Course Pre-requisites, ifany:		Knowledge of Programming		
Formative Assessment Marks: 25		Summative Assessment Marks: 25	Duration of ESA: 03 hrs.	
		Practicals: **Part A** 1. Program to Design LOG IN Form in Html. 2. Program for Creating animation of "Bouncing Cloud" using HTML and CSS 3. Program to demonstrate a keyframe animation. 4. Program to demonstrate a Font style, font weight, and font size properties using CSS. 5. Program to demonstrate multiple animations. 6. Program to use table tag to format web page. Also create the Time Table of your class using table tag. 7. Program to Demonstrate Longhand properties in CSS. 8. Program to Demonstrate shorthand properties in CSS. 9. Program to Demonstrate animation in reverse direction or alternate cycles. 10. Write JavaScript Program to show light ON/OFF Demo		
		Part B 1. Program to Demonstrate SVG (Scalable Vector Graphics) Circle. 2. Program to Demonstrate SVG (Scalable Vector Graphics) Eclipse. 3. Program to Demonstrate SVG (Scalable Vector Graphics) Star. 4. Program to demonstrate "**StrokeText()"** method using HTML Canvas. 5. Program to demonstrate **BezierCurveTo()** method using HTML canvas. 6. Program to demonstrate different **line patterns** with different colors using Canvas. 7. Program to demonstrate **Gradients** using HTML Canvas. 8. Program to demonstrate **Text shadows** using HTML Canvas. 9. Program to Demonstrate Source-Over, Source-in, and Source-Out properties for composition using HTML Canvas. 10. Program to create a rectangle and animate increase and decrease the size of rectangle.		

Evaluation Scheme for Lab Examination:

Assessment Criteria		**Marks**
Program – 1 from Part A	Writing the Program	03
	Execution and Formatting	07
Program -2 from Part B	Writing the Program	03
	Execution and Formatting	07
Viva Voice based on **Computer Multimedia & Animation**		05
Total		25