

**Government of Karnataka**  
**Department of Technical Education**  
**Bengaluru**

	<b>Course Title: Multimedia Lab</b>		
	Scheme (L:T:P) : <b>0:2:4</b>	Total Contact Hours: <b>78</b>	Course Code: <b>15CS23P</b>
	Type of Course: <b>Tutorial and Practical's</b>	Credit : <b>03</b>	Core/ Elective: <b>Core</b>
CIE- 25 Marks		SEE-50 Marks	

**Prerequisites:**

Basic Computer Operations and Creative ideas.

**Course Objectives:**

Learn the various photo editing features and animation techniques and demonstrate proficiency in developing the multimedia presentations.

**Course Outcome**

*On successful completion of the course, the students will be able to attain CO:*

Course Outcome		Experiment linked	CL	Linked PO	Teaching Hrs
CO1	Apply basic elements and principles of photo editing software to achieve a great photo effect by applying effects like color, shadows, alteration of backgrounds, cropping and collage making.	<b>1-6</b>	<b>A</b>	1,2,3,4,5,8,9,10	<b>36</b>
CO2	Create simple shapes using animation editing software and design simple animation by applying shape tweens and motion tweens.	<b>7-12</b>	<b>A</b>	1,2,3,4,5,8,9,10	<b>42</b>
			<b>Total sessions</b>		<b>78</b>

**Legends:** R = Remember U= Understand; A= Apply and above levels (Bloom's revised taxonomy)

**Course-PO Attainment Matrix**

Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
<b>Multimedia Lab</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	-	-	<b>3</b>	<b>3</b>	<b>3</b>

**Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.**

Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.

If  $\geq 40\%$  of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3

If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2

If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1

If  $< 5\%$  of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.

## List of Graded Exercises

### Unit I

Using suitable Photo Editing Software, perform the following exercises:

1. Design a Visiting Card containing at least one graphic and text information.
2. You are given a picture of a garden as background. Extract the image of a butterfly from another picture and organize it on the background.
3. Given a picture, make three copies of this picture. On one of these pictures, adjust the brightness and contrast, so that it gives an elegant look. On the second picture, change it to grayscale and the third is the original one.
4. Convert the given image to a pencil sketch.
5. Mask the background image given through your name.
6. Import two pictures, one that of sea and another of clouds. Morph, Merge and Overlap the images.

### Unit II

Using suitable animation software, solve the following projects:

7. **Shape Distortion:** Create a square and gradually convert it into a circle.
8. **Spotlight:** Create a text on one layer; format the text with suitable size, color and style. With the help of another layer, position a spotlight on the text and move the spotlight from left to right.
9. **Virtual Drumbeat:** Draw a circle to represent a drum and edit as required on one layer. Insert another layer, draw suitable drum sticks and position them appropriately. Give visual effects. Also provide audio effect by selecting the sound item from Flash library Sounds fla, so as to integrate audio and video clips.
10. **Simulation of a Raindrop:** In the first layer, draw a raindrop that falls on the ground. Show the splash effect, when it touches the ground on another layer.
11. **Sunset:** Create a suitable background with clouds and mountains on one layer. Draw the Sun on another layer. On the third layer draw birds. Provide animation to show the birds flying across the Sun that keeps fading.
12. **Stickman Walk:** Draw a walking track on one layer. On another layer draw a stickman, with animation show the man walking over the track from left to right.

### Mini-project [CIE- 05 Marks]

Prepare a mini project of a minimum of 5 pages of report, using the above concepts of Unit-I and/or Unit-II.

## References:

1. Practical Photoshop® CS6, Level 1 by Barbara Zukin Heiman, Donald Laird, Corrine Haverinen, Windsor Green, & Marilyn P. Kelly Practical Photoshop.
2. Project Flash MX by Nat Gertler, Thomson Delmar Learning Publication.
3. Comdex Multimedia and Web Design Course Kit, DreamTech, Vikas Gupta, ISBN 13: 788177229196
4. <http://www.coursestuff.co.uk/DESI1182/docs/Flash%20tutorials.pdf>
5. [http://w3.id.tue.nl/fileadmin/id/objects/E-telier/Phidgets/Software/Flash/fl8\\_tutorials.pdf](http://w3.id.tue.nl/fileadmin/id/objects/E-telier/Phidgets/Software/Flash/fl8_tutorials.pdf)
6. <http://design.tutsplus.com/articles/50-great-photoshop-tutorials-for-clever-beginners--psd-785>

## Course Delivery:

The course will be delivered through tutorials of two hours and four hours of hands on practice per week.

## Course Assessment and Evaluation Scheme:

	What		To whom	When/Where (Frequency in the course)	Max Marks	Evidence collected	Course outcomes
Direct Assessment method	CIE (Continuous Internal Evaluation)	IA Tests	Students	Two IA Tests (Average of Two Tests will be computed)	10	Blue books	1,2
				Record Writing (Average marks of each exercise to be computed)	10	Record Book	1,2
				Mini Project	05	Report	1,2
	<b>TOTAL</b>				<b>25</b>		
	SEE (Semester End Examination)	End Exam		End of the course	50	Answer scripts at BTE	1,2
Indirect Assessment method	Student Feedback on course		Students	Middle of the course		Feedback forms	1 Delivery of course
	End of Course Survey			End of the course		Questionnaires	1,2 Effectiveness of Delivery of instructions & Assessment Methods

\*CIE – Continuous Internal Evaluation

\*SEE – Semester End Examination

**Note:**

1. I.A. test shall be conducted as per SEE scheme of valuation. However obtained marks shall be reduced to 10 marks. Average marks of two tests shall be rounded off to the next higher digit.
2. Rubrics to be devised appropriately by the concerned faculty to assess Student activities/Mini Project.

**Questions for CIE and SEE will be designed to evaluate the various educational components (Bloom's taxonomy) such as:**

Sl. No	Bloom's Category	%
1	Remembrance	10
2	Understanding	20
3	Application	70

### Format for Student Activity Assessment

DIMENSION	Unsatisfactory 1	Developing 2	Satisfactory 3	Good 4	Exemplary 5	Score
<b>Collection of data</b>	Does not collect any information relating to the topic	Collects very limited information; some relate to the topic	Collects some basic information; refer to the topic	Collects relevant information; concerned to the topic	Collects a great deal of information; all refer to the topic	3
<b>Fulfill team's roles &amp; duties</b>	Does not perform any duties assigned to the team role	Performs very little duties	Performs nearly all duties	Performs all duties	Performs all duties of assigned team roles with presentation	4
<b>Shares work equally</b>	Always relies on others to do the work	Rarely does the assigned work; often needs reminding	Usually does the assigned work; rarely needs reminding	Does the assigned job without having to be reminded.	Always does the assigned work without having to be reminded and on given time frame	3
<b>Listen to other Team mates</b>	Is always talking; never allows anyone else to speak	Usually does most of the talking; rarely allows others to speak	Listens, but sometimes talk too much	Listens and contributes to the relevant topic	Listens and contributes precisely to the relevant topic and exhibit leadership qualities	3
<b>TOTAL</b>						<b>13/4=3.25=4</b>

*\*All student activities should be done in a group of 4-5 students with a team leader.*

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### Scheme of Evaluation for End Exam

SN	Content	Max. Marks
1	Writing steps one each from Unit I and Unit -II	05+05=10
2	Testing the psychomotor skills (Quickness in choosing appropriate tools and performing) of Unit I and Unit II to achieve the task	10+10=20
3	Application of Final effects	05+05=10
4	Viva voce	10
	Total	<b>50</b>
	<b>Note:</b> 1. Candidate shall submit Lab Record for the Examination. 2. Student should be allowed to execute directly even if she / he unable to write the procedure 3. In case of change in experiment or no write up, marks will not be awarded for writing procedure/steps.	

### Resource requirements for Multimedia Lab

(for an intake of 60 Students [3 Batches] )

#### Hardware Requirement:

Sl. No.	Equipment	Quantity
1	PC systems (latest configurations with speakers)	20
2	Laser Printers	03
3	Networking (Structured) with CAT 6e / wireless 24 Port switches / Wireless Router I/O Boxes for networking(as required)	03
4	Broad Band Connection	01

**Software Requirement:** FOSS Photo Editor/Animation Tools/any other

#### Note:

Students: Computers ratio in the Lab should be strictly **1:1** for a batch of twenty Students.

## MODEL QUESTION BANK

Course Title: **MULTIMEDIA LAB**

Course Code: **15CS23P**

*Note: One Question to be given from each of the Units I and II.*

### Unit I

1. Using photo editing software, design a visiting card containing at least one graphic and text information.
2. You are given a picture of a garden as background. Extract the image of a butterfly from another picture and organize it on the background. Use photo editing software,
3. Using photo editing software, make three copies of .jpeg picture. On one of these pictures, adjust the brightness and contrast, so that it gives an elegant look. On the second picture, change it to grayscale and the third is the original one.
4. Using photo editing software convert an image imported from My Pictures, to a pencil sketch.
5. Using photo editing software, Mask the background image given through your name.
6. Using photo editing software, import two pictures, one that of sea and another of clouds. Morph, merge and overlap these images.

### Unit II

7. Using animation software show the gradual conversion of a square to a circle.
8. Using animation software, highlight a neatly formatted text by a spotlight from left to right.
9. Using animation software, show the effect of a Virtual Drumbeat with suitable audio and visual effects.
10. Using animation software, Simulate a Raindrop with a splash effect.
11. Using animation software, show the sunset event with a bird flying across while the sun keeps fading.
12. Using animation software, design a stickman walking over a track from left to right.