

## LOCF/CBCS/ B.Sc. (Graphics & Animation)/KUK

**Scheme of Examination of B.Sc. (Graphics & Animation) for 5<sup>th</sup> & 6<sup>th</sup> Semester under CBCS/LOCF for Institute of Mass Communication & Media Technology (IMC&MT, KUK) in phased manner w.e.f. Academic Session 2020-21**

### Semester-V

Course Code	Course Title	Course Type	Contact Hours per Week				Credits	Total Credits	Marks				Duration of Exam	
			L	T	P	Total			T	P	IA	Total		
B-GAG 501 (a)	Organic Rigging & Lighting (Theory )	DSE-1	4	-	-	4	4	6	80	-	20	100	3 Hours	
B-GAG 502 (a)	Organic Rigging & Lighting (Practical )		-	-	2	4	2		-	40	10	50	3 Hours	
OR														
B-GAG 501 (b)	Mechanical Rigging & Lighting (Theory )		4	-	-	4	4		80	-	20	100	3 Hours	
B-GAG 502 (b)	Mechanical Rigging & Lighting (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
B-GAG 503 (a)	3D Creature Animation & Rendering (Theory)	DSE-2	4	-	-	4	4	6	80	-	20	100	3 Hours	
B-GAG 504 (a)	3D Creature Animation & Rendering (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
OR														
B-GAG 503 (b)	3D Product Animation & Rendering (Theory)		4	-	-	4	4		80	-	20	100	3 Hours	
B-GAG 504 (b)	3D Product Animation & Rendering (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
B-GAG 505 (a)	Commercial Design (Theory)	DSE-3	4	-	-	4	4	6	80	-	20	100	3 Hours	
B-GAG 506 (a)	Commercial Design (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
OR														
B-GAG 505 (b)	Motion Design (Theory)		4	-	-	4	4		80	-	20	100	3 Hours	
B-GAG 506 (b)	Motion Design (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
B-GAG 507	Product Photography (Theory)	SEC-3	1	-	-	1	1	2	20		5	25	1 Hours	
B-GAG 508	Product Photography (Practical)		-	-	2	2	1		-	20	5	25	1 Hours	
B-GAG 509	Internship Report*						2				50			
<b>Total Credits</b>							<b>22</b>	<b>Total Marks</b>			<b>550</b>			

## Semester-VI

Course Code	Course Title	Course Type	Contact Hours per Week				Credits	Total Credits	Marks				Duration of Exam	
			L	T	P	Total			T	P	I A	Total		
B-GAG 601 (a)	Web Designing (Theory)	DSE-4	4	-	-	4	4	6	80	-	20	100	3 Hours	
B-GAG 602 (a)	Web Designing (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
OR														
B-GAG 601 (b)	PHP (Theory)		4	-	-	4	4		80	-	20	100	3 Hours	
B-GAG 602 (b)	PHP (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
B-GAG 603 (a)	Visual Effect (Theory)	DSE-5	4	-	-	4	4	6	80	-	20	100	3 Hours	
B-GAG 604 (a)	Visual Effect (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
OR														
B-GAG 603 (b)	Advertisement Design (Theory)		4	-	-	4	4		80	-	20	100	3 Hours	
B-GAG 604 (b)	Advertisement Design (Practical)		-	-	2	4	2		-	40	10	50	3 Hours	
B-GAG 605 (Optional)	<b>Project</b>	DSE-6**						6						
B-GAG 605 (a)	3D Animation Clip		-	-	-	-	6		-	120	30	150	6 Hours	
B-GAG 605 (b)	2D Animation Clip													
B-GAG 605 (c)	Documentary													
B-GAG 605 (d)	Graphic Design-UI													
B-GAG 605 (e)	MOOC													
B-GAG 606	Entrepreneurship (Theory)	SEC-4	1	-	-	1	1	2	20	-	5	25	1 Hours	
B-GAG 607	Entrepreneurship (Practical)		-	-	2	2	1		-	20	5	25	1 Hours	
<b>Total Credits</b>							<b>20</b>	<b>Total Marks</b>				<b>500</b>		

\* Students have to complete the internship of four to six weeks after the examination of 4<sup>th</sup> semester and submit the report of internship in the commencement of 5<sup>th</sup> semester. The report submitted by the students will be evaluated by the teacher appointed by the Director and a viva-voce will be conducted during practical examination.

\*\*Viva -Voce of DSE-6 (Major Project) is to be evaluated by a panel of three examiners to be appointed by the Director of the institute and it is to be submitted to the institute by the student 20 days prior to the theory examination of the semester in which the Report is supposed to be submitted.

## **B-GAG 501 (a): Organic Rigging & Lighting (Theory)**

Time:3 Hrs.

Credits: 4

Total Marks: 100

Theory: 80

Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Rigging and Lighting. This course takes the students at the level of high efficiency in various aspects in Rigging and Lighting techniques.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 501 (a).1:</b> Understanding the basics of Rigging
<b>B-GAG 501 (a).2:</b> Study of Skeleton & Anatomy setup
<b>B-GAG 501 (a).3:</b> Explore how to assemble the whole setup into a master rig
<b>B-GAG 501 (a).4:</b> Understanding the different types of Lighting techniques

**Note:** -The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### **Unit-I**

#### **Introduction To Rigging**

- Basic Human Anatomical Structure
- Group And Hierarchy
- Joints, Forward Kinematics, Inverse Kinematics
- Mirroring Joints, Reroot Skeleton, Connect/Disconnect Joints
- Joint Orientation

### **Unit -II**

#### **Basic Rigging**

- Project Set up
- Constraints
- Deformers
- Set Driven Key, Adding Custom Attributes
- Connection Editor, Expression Editor, Reference Editor

- IK Handle Tool, IK Solvers (Rotate Plane, Single Chain, Spline), IK Controls, IK Preferred Angle, Pole Vector Constraint

### **Unit-III**

#### **Character Anatomy & Skinning**

- Anatomy of the torso, leg, arms, hands, and fingers
- Biped skeleton
- Head Rigging
- Facial Rigging
- Skinning, Interactive/smooth Binding, Controlling skin weight
- Painting Skin weight & Editing skin weight

### **Unit-IV**

#### **Lighting**

- Theory of Lighting
- Direct Illumination, Manipulation of Lighting(effects)
- Working on Different Types of Lighting
- Environment Lighting
- Interior n Exterior Lighting

#### **References:**

- *Animation Methods-Rigging Made Easy: Rig Your First Character in Maya: David Rodriguez*
- *Maya Character Rigging: Cheryl Cabrera*
- *Rig IS Right! Maya Animation Rigging Concepts by Tina*
- *Essential Skills in Character Rigging by Nicholas B. Zeman*

## **B-GAG 501 (a): Organic Rigging & Lighting (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG501 (a).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG501 (a).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG501 (a).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG501 (a).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG501 (a).1</b>	3	3	2	2	3
<b>B-GAG501 (a).2</b>	3	3	3	3	3
<b>B-GAG501 (a).3</b>	3	3	3	3	3
<b>B-GAG501 (a).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG501 (a).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG501 (a).2</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG501 (a).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG501 (a).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 502 (a): Organic Rigging & Lighting (Practical)**

Time:3 Hrs.

Credits: 2

Total Marks: 50

Practical: 40

Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Rigging and Lighting. This course takes the students at the level of high efficiency in various aspects in Rigging and Lighting techniques.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 502 (a).1:</b> Understanding the basics of Rigging
<b>B-GAG 502 (a).2:</b> Study of Skeleton & Anatomy setup
<b>B-GAG 502 (a).3:</b> Explore how to assemble the whole setup into a master rig
<b>B-GAG 502 (a).4:</b> Understanding the different types of Lighting techniques

**Note:** - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

<b>List of Practical Exercises:</b>
Learn Bone Setup in Human and Cartoon Character
Create Controls with help of IK and FK
Wire Parameters
Skinning and binding
Three Point Lighting setup for object
Interior Lighting setup
Exterior Lighting
Facial Rigging Controls
Robotic Rigging
Animal Rig
Bird Wings Control Setup
Show reel of rigging

## **B-GAG502: Organic Rigging & Lighting (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG502 (a).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG502 (a).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG502 (a).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG502 (a).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	3	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG502 (a).1</b>	3	3	2	3	3
<b>B-GAG502 (a).2</b>	3	3	3	3	3
<b>B-GAG502 (a).3</b>	3	3	3	3	3
<b>B-GAG502 (a).4</b>	3	3	3	2	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG502 (a).1</b>	3	3	3	3	3	3	3	3	3	3	2	3	3
<b>B-GAG502 (a).2</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG502 (a).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG502 (a).4</b>	3	3	3	3	3	3	2	3	3	3	3	2	3
<b>Average</b>	3	3	3	3	3	3	2.75	3	3	3	2.75	2.75	3

## **B-GAG 501 (b): Mechanical Rigging & Lighting (Theory)**

Time:3 Hrs.

Credits: 4

Total Marks: 100

Theory: 80

Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 501 (b).1:</b> Understanding the basics of Rigging
<b>B-GAG501 (b).2:</b> Students will be able to rig different objects
<b>B-GAG501 (b).3:</b> Understanding the Setup of Mechanical Rigging
<b>B-GAG501 (b).4:</b> Understanding the different types of Lighting of Mechanical objects.

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### **Unit-I**

#### **Introduction To Rigging**

- Rig preparation & organization
- Group And Hierarchy
- Naming of the Mechanical object
- Mirroring Joints, Reroot Skeleton, Connect/Disconnect Joints
- Joint Orientation

### **Unit -II**

#### **Basic Mechanical Rigging**

- Structure of Machine Learning
- Designing of bones
- Constraints
- Cluster & blend shape Deformers
- Set Driven Key, Adding Custom Attributes
- Connection Editor, Expression Editor, Reference Editor



- IK Handle Tool, IK Solvers (Rotate Plane, Single Chain, Spline), IK Controls, IK Preferred Angle, Pole Vector Constraint

### **Unit-III**

#### **Mechanical Character Aspects**

- Set up of Mechanical Rigging
- Robot Rigging
- Spider Rigging
- Skinning, Interactive/smooth Binding, Controlling skin weight
- Painting Skin weight & Editing skin weight

### **Unit-IV**

#### **Lighting**

- Theory of Lighting
- Direct Illumination, Manipulation of Lighting(effects)
- Working on Different Types of Lighting
- Environment Lighting
- Interior n Exterior Lighting

#### **References:**

- *Animation Methods-Rigging Made Easy: Rig Your First Character in Maya: David Rodriguez*
- *Maya Character Rigging: Cheryl Cabrera*
- *Rig IS Right! Maya Animation Rigging Concepts by Tina*
- *Essential Skills in Character Rigging by Nicholas B. Zeman*

## **B-GAG 503: Mechanical Rigging & Lighting (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG501 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG501 (b).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG501 (b).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG501 (b).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG501 (b).1</b>	3	3	2	2	3
<b>B-GAG501 (b).2</b>	3	3	3	3	3
<b>B-GAG501 (b).3</b>	3	3	3	3	3
<b>B-GAG501 (b).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG501 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG501 (b).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG501 (b).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG501 (b).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 502 (b): Mechanical Rigging & Lighting (Practical)**

Time:3 Hrs.

Credits: 3

Total Marks: 50

Theory: 40

Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 502 (b).1:</b> Understanding the basics of Rigging
<b>B-GAG 502 (b).2:</b> Students will be able to rig different objects
<b>B-GAG 502 (b).3:</b> Understanding the Setup of Mechanical Rigging
<b>B-GAG 502 (b).4:</b> Understanding the different types of Lighting of Mechanical objects.

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

<b>List of Practical Exercises:</b>
Learn Bone Setup in Machines
Create Controls with help of Ik and FK
Wire Parameters
Skinning and binding
Three Point Lighting setup for object
Interior Lighting setup
Exterior Lighting
Crane Rig
Automobile Rigging
Robotic Face Rigging
Robotic Arm Rig

## **B-GAG 502 (b) : Mechanical Rigging & Lighting (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG502 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG502 (b).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG502 (b).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG502 (b).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG502 (b).1</b>	3	3	2	2	3
<b>B-GAG502 (b).2</b>	3	3	3	3	3
<b>B-GAG502 (b).3</b>	3	3	3	3	3
<b>B-GAG502 (b).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG502 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG502 (b).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG502 (b).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG502 (b).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 503 (a) :3D Creature Animation and Rendering (Theory)**

Time:3 Hrs.  
Credits: 4

Total Marks: 100  
Theory: 80  
Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 503 (a).1:</b> Understanding the basics of 3d Creature Animation
<b>B-GAG 503 (a).2:</b> Students will be able to Animate different Creatures
<b>B-GAG 503 (a).3:</b> Understanding the Setup of Animation Keys and In-betweens
<b>B-GAG 503 (a).4:</b> Understanding the different types of Animation Techniques and able to handle the Speed of movement.

**Note: - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.**

### **Unit-I**

#### **Introduction**

- 3D Animation: Types and Techniques
- Key Frames: Add & Blocking , Move & Modify
- Key Frame Animation : Ball Bounce
- Graph for Animation: Types and features
- Dope Sheet: Setup and Edit
- Connection Editor, Expression Editor, Reference Editor
- Camera: Setup, Modify and Animation
- FPS: Add & Modify
- Time line: Elements and Controls

## **Unit –II**

### **Organic Aspects**

- Difference between Animation & Motion
- Mass & Weight
- Squash & Stretch: Ball, Hand, Arms and Face
- Arc: Box Bounce, Pendulum
- Timing and Spacing: Leaf Animation
- Morphing: Face Animation & Shape Morph
- Eyes Blinking and Movement

## **Unit-III**

### **Basic Creature Animation**

- Anticipation: Walk, and Run
- Secondary Action: Pulling Chain
- Follow Through and Overlapping Animation: Tail
- Slow in & Slow Out: Kick & Punch
- Facial Animation:
- Straight Ahead Action: Action with Sword

## **Unit-IV**

### **Rendering**

- Rendering: Concept & Scope
- Types of Rendering: Maya Software Render, Maya Hardware 2.0 and Arnold Rendering
- Rendering: Process & Settings
- Shadow Pass Rendering and Lighting Pass Rendering

## **References:**

*Autodesk Maya 2018 Basics Guide by Kelly L. Murdock*

*The Animator's Survival Kit*

*Understanding 3-D animation using Maya John Edgar Park*

*Essential Skills in Character Rigging by Nicholas B. Zeman*

*3D Animation Essentials (Essentials (John Wiley)*

*Disney Animation: The Illusion of Life*

*The Animator's Survival Kit by Richard E. Williams*

*3D Animation for the Raw Beginner Using Maya Roger King*

*3D Art Essentials: The Fundamentals of 3D Modeling, Texturing, and Animation by Ami Chopine*

*The Art of 3D: Computer Animation and Effects*

*Character Animation in 3D: Use Traditional Drawing Techniques to Produce Stunning*

*CGI Animation Steve Roberts*

*Mastering Lumion 3D by Ciro Cardoso*

*Animated Performance: Bringing Imaginary Animal, Human and Fantasy Characters to Life Nancy Beiman*

## **B-GAG 503 (a) : 3D Creature Animation and Rendering (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG503 (a).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG503 (a).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG503 (a).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG503 (a).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG503 (a).1</b>	3	3	2	2	3
<b>B-GAG503 (a).2</b>	3	3	3	3	3
<b>B-GAG503 (a).3</b>	3	3	3	3	3
<b>B-GAG503 (a).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG503 (a).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG503 (a).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG503 (a).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG503 (a).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3



## **B-GAG 504 (a): 3D Creature Animation and Rendering (Practical)**

Time:3 Hrs.

Credits: 3

Total Marks: 50

Theory: 40

Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 504 (a).1:</b> Understanding the basics of 3d Creature Animation
<b>B-GAG 504 (a).2:</b> Students will be able to Animate different Creatures
<b>B-GAG 504 (a).3:</b> Understanding the Setup of Animation Keys and In-betweens
<b>B-GAG 504 (a).4:</b> Understanding the different types of Animation Techniques and able to handle the Speed of movement.

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

<b>List of Practical Exercises:</b>
Rubber Ball Bounce / Iron Ball Bounce
Leaf Falling Animation
Face Expression with morph and without morph
Normal Walk Cycle / Funny Walk Cycle
Double Jump
Chain Pulling Animation
Punch Action
Action with Gadget
Frame Rendering
Sequence Rendering
Video Rendering

## **B- GAG 506: 3D Creature Animation and Rendering (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 504 (a).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG 504 (a).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG 504 (a).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG 504 (a).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 504 (a).1</b>	3	3	2	2	3
<b>B-GAG 504 (a).2</b>	3	3	3	3	3
<b>B-GAG 504 (a).3</b>	3	3	3	3	3
<b>B-GAG 504 (a).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 504 (a).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG 504 (a).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG 504 (a).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG 504 (a).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 503 (b) :3D Product Animation and Rendering (Theory)**

Time: 3 Hrs.  
Credits: 4

Total Marks: 100  
Theory: 80  
Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 503 (b).1:</b> Understanding the basics of 3d Product Animation
<b>B-GAG 503 (b).2:</b> Students will be able to Animate different Object
<b>B-GAG 503 (b).3:</b> Understanding the Setup of Animation Keys and In-betweens
<b>B-GAG 503 (b).4:</b> Understanding the different types of Animation Techniques and able to handle the Speed of movement.

**Note: - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.**

### **Unit-I**

#### **Introduction**

- 3D Animation: Types and Techniques
- Key Frames: Add & Blocking , Move & Modify
- Key Frame Animation : Ball Bounce
- Graph for Animation: Types and features
- Dope Sheet: Setup and Edit
- Connection Editor, Expression Editor, Reference Editor
- Camera: Setup, Modify and Animation
- FPS: Add & Modify
- Time line: Elements and Controls

## **Unit –II**

### **Animation Basic Aspects**

- Difference between Animation & Motion
- Mass & Weight
- Squash & Stretch: Ball, Cylinder, Spring
- Arc: Box Bounce, Robotic Arm
- Timing and Spacing: Ship and Spaceship
- Morphing: Rectangle to Square Shape Animation & Increase Size of object in the Proposition of Composition
- Robotic Car Eyes Blinking and Movement
- Logo Animation

## **Unit-III**

### **Object Animation**

- Animation with Constraints
- Anticipation: Car Run and Rocket Jump
- Secondary Action: Helicopter Animation Takeoff and Landing
- Follow Through and Overlapping Animation: Vehicle Chain Animation
- Slow in & Slow Out: Crane Object Pic and Drop Animation
- Straight Ahead Action: Object Explosion and Construction
- Clock: Digital and Analog Animation

## **Unit-IV**

### **Rendering**

- Rendering: Concept & Scope
- Types of Rendering: Maya Software Render, Maya Hardware 2.0, IPR rendering and Arnold Rendering
- Rendering: Process & Settings
- Shadow Pass Rendering and Lighting Pass Rendering

## **References:**

*Autodesk Maya 2018 Basics Guide by Kelly L. Murdock*

*The Animator's Survival Kit*

*Understanding 3-D animation using Maya John Edgar Park*

*Essential Skills in Character Rigging by Nicholas B. Zeman*

*3D Animation Essentials (Essentials (John Wiley)*

*Disney Animation: The Illusion of Life*

*The Animator's Survival Kit by Richard E. Williams*

*3D Animation for the Raw Beginner Using Maya Roger King*

*3D Art Essentials: The Fundamentals of 3D Modeling, Texturing, and Animation by Ami Chopine*

*The Art of 3D: Computer Animation and Effects*

*Character Animation in 3D: Use Traditional Drawing Techniques to Produce Stunning*

*CGI Animation Steve Roberts*

*Mastering Lumion 3D by Ciro Cardoso*

*Animated Performance: Bringing Imaginary Animal, Human and Fantasy Characters to Life Nancy Beiman*

## **B-GAG 503 (b): 3D Product Animation and Rendering (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 503 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG 503 (b).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG 503 (b).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG 503 (b).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 503 (b).1</b>	3	3	2	2	3
<b>B-GAG 503 (b).2</b>	3	3	3	3	3
<b>B-GAG 503 (b).3</b>	3	3	3	3	3
<b>B-GAG 503 (b).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 503 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG 503 (b).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG 503 (b).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG 503 (b).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 504 (b): 3D Product Animation and Rendering (Practical)**

Time: 3 Hrs.

Credits: 3

Total Marks: 50

Theory: 40

Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete understanding about the 3D Mechanical Rigging and Lighting. It helps to learn the rudimentary techniques of Mechanical Rigging and Lighting.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 504 (b).1:</b> Understanding the basics of 3d Product Animation
<b>B-GAG 504 (b).2:</b> Students will be able to Animate different Objects
<b>B-GAG 504 (b).3:</b> Understanding the Setup of Animation Keys and In-betweens
<b>B-GAG 504 (b).4:</b> Understanding the different types of Animation Techniques and able to handle the Speed of movement.

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

<b>List of Practical Exercises:</b>
Rubber Ball Bounce / Iron Ball Bounce
Spring Jump
Robotic Arm Activity
Object Transformation
3D Typography Animation
Logo Animation
Car Racing
Object Explosion and Construction
Frame Rendering
Sequence Rendering
Video Rendering

## **B-GAG 504 (b): 3D Product Animation and Rendering (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 504 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG 504 (b).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG 504 (b).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG 504 (b).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 504 (b).1</b>	3	3	2	2	3
<b>B-GAG 504 (b).2</b>	3	3	3	3	3
<b>B-GAG 504 (b).3</b>	3	3	3	3	3
<b>B-GAG 504 (b).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 504 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG 504 (b).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG 504 (b).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG 504 (b).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3



## **B-GAG 505 (a): Commercial Design (Theory)**

Time: 3 Hrs.  
Credits: 4

Total Marks: 100  
Theory: 80  
Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Commercial Design. It helps to learn the rudimentary techniques Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 505 (a).1:</b> Understanding the basics of Commercial Design
<b>B-GAG 505 (a).2:</b> Students will be able to Design for Commercial goods
<b>B-GAG 505 (a).3:</b> Understanding the different kind of commercial design
<b>B-GAG 505 (a).4:</b> Understanding the different types of Designing Techniques.

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### **Unit-I**

#### **Introduction**

- Commercial Design: Introduction and Scope
- Brand and Branding Design
- Strategy Design Process
- Design Principal: Practice & Implement
- Layout Designing Principals

### **Unit –II**

#### **Typography**

- Typography and Typeface Design
- Types and Features of Typefaces
- Structure and elements of Typeface
- Leading, Kerning and Tracking

## **Unit-III**

### **Packaging Design**

- Packaging and Designing
- Packaging Design: Process
- Packaging Design Principal
- Elements of Packaging Design
- Packaging Design: Outer Packaging , Inner Packaging and Product Packaging
- Boxes Design Packaging
- Cylindrical Design Packaging

## **Unit-IV**

### **Color & Authoring**

- Color Theory
- CMYK , Lab Colors and Pantone Colors
- Color Phycology
- Export and Authoring: Size Colors and Fonts

### **References:**

- *The New Strategic Brand Management – Advanced Insights & Strategic Thinking by Jean-Noël Kapferer*
- *Building Strong Brands by David Aaker*
- *Design and Strategy A Step-by-Step Guide By Wanda Grimsgaard*

## **B-GAG 505 (a) : Commercial Design (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 505 (a).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG 505 (a).2</b>	3	3	3	3	3	3	3	3
<b>B-GAG 505 (a).3</b>	3	3	3	3	3	3	3	3
<b>B-GAG 505 (a).4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 505 (a).1</b>	3	3	2	2	3
<b>B-GAG 505 (a).2</b>	3	3	3	3	3
<b>B-GAG 505 (a).3</b>	3	3	3	3	3
<b>B-GAG 505 (a).4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 505 (a).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG 505 (a).2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG 505 (a).3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG 505 (a).4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 506 (a): Commercial Design (Practical)**

Time: 3 Hrs.

Credits: 3

Total Marks: 50

Theory: 40

Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Commercial Design. It helps to learn the rudimentary techniques Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 506 (a).1:</b> Understanding the basics of Commercial Design
<b>B-GAG 506 (a).2:</b> Students will be able to Design for Commercial goods
<b>B-GAG 506 (a).3:</b> Understanding the different kind of commercial design
<b>B-GAG 506 (a).4:</b> Understanding the different types of Designing Techniques.

**Note: - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.**

<b>List of Practical Exercises:</b>
Newspaper Design
Food Package Design
Electronic Product Package
Bottle Branding Design
Box Package Design
Special occasion based package
Typography Based package Design
Toy Package design

## **B-GAG 506 (a): Commercial Design (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG506 (a).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG506 (a).1</b>	3	3	2	2	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG506 (a).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG506 (a).1</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG506 (a).1</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG506 (a).1</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 505 (b): Motion Design (Theory)**

Time: 3 Hrs.  
Credits: 4

Total Marks: 100  
Theory: 80  
Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Motion Design. It helps to learn the rudimentary techniques Motion Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 505 (b).1:</b> To Learn Techniques of Motion Graphics
<b>B-GAG 505 (b).2:</b> Understand the basic knowledge of Motion Production
<b>B-GAG 505 (b).3:</b> Know about the Techniques and function of Motion Graphics
<b>B-GAG 505 (b).4:</b> To Gain Knowledge of Motion Graphics Stages

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### **Unit-I**

#### **Introduction**

- Adobe After Effects: Interface, Tools and Menu
- Motion Graphics History.
- Motion Graphics and Functions and Scope
- Motion Graphics Elements: Colors, Shapes, Surfaces, Typography, and Transitions.

### **Unit –II**

#### **Basic Motion**

- Key Frame Types: Liner, Auto Bezier, Continue Bezier, Bezier and Hold
- Key framing: Adding, Modify, Change and Move & Remove
- Graph Edition: Types and Features
- Motion: Icons and Typography
- Information Graphics Motion
- Animated Titles

## Unit-III

### Motion Production

- Social media Advertisements
- Logo Animation
- UI Animation
- Product Animation / Motion Advertisements
- Cinematography Motion

## Unit-IV

### Broadcasting Graphics

- Program Intro Graphics
- Header Graphics Ribbon Motion
- Footer Motion Graphics
- Video Package of Explainer Video

### **References:**

- *Adobe After Effects Classroom in a Book*
- *After Effects - Visual Effects and Compositing*
- *After Effects Apprentice*
- *Design for Motion: Fundamentals and Techniques of Motion Design*
- *Design for Motion: Fundamentals and Techniques of Motion Design* by Austin Shaw
- *Motion Graphic Design: Applied History and Aesthetics* by Jon Krasner
- *Creating Motion Graphics with After Effects* by Chris Meyer, Trish Meyer
- *Motion Graphics: 100 Design Projects You Can't Miss* by Shao Qiang Wang

## **B-GAG 505 (b): Motion Design (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG505 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG505 (b).1</b>	3	3	2	2	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG505 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG505 (b).1</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG505 (b).1</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG505 (b).1</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3



## **B-GAG 506 (b): Motion Design (Practical)**

Time: 3 Hrs.  
Credits: 3

Total Marks: 50  
Theory: 40  
Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Motion Design. It helps to learn the rudimentary techniques Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 506 (b).1:</b> To Learn Techniques of Motion Graphics
<b>B-GAG 506 (b).2:</b> Understand the basic knowledge of Motion Production
<b>B-GAG 506 (b).3:</b> Know about the Techniques and function of Motion Graphics
<b>B-GAG 506 (b).4:</b> To Gain Knowledge of Motion Graphics Stages

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

<b>List of Practical Exercises:</b>
Typographic Motion
Icon Based Motion
Animated Tittles
Social Media Advertisement Motion
Logo Motion
UI Motion
Cinematic Video Motion
Explainer Video
Motion Advertisements
Television Broadcaster Graphics Interface

## **B-GAG 506 (b): Motion Design (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 506 (b).1</b>	3	3	3	2	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 506 (b).1</b>	3	3	2	2	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 506 (b).1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG 506 (b).1</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG 506 (b).1</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 507: Product Photography (Theory)**

Time: 1 Hrs.  
Credits: 1

Total Marks: 25  
Theory: 20  
Internal Assessment: 05

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Product Photography.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 507.1:</b> To Learn Techniques of Product Photography
<b>B-GAG 507.2:</b> Understand the basic knowledge of Product Photography
<b>B-GAG 507.3:</b> Know about the Techniques and function Photography
<b>B-GAG 507.4:</b> To Gain Knowledge of Commercial Photography

**Note:** - The question paper will be divided into three Units containing five questions. Students are required to attempt three questions in all. There will be two questions in each unit from I to II and students are required to attempt one question from each unit. Unit III will have only one Compulsory question containing four to six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### **Unit-I**

#### **Fundamental of Photography**

- Product Photography: Types and Scope
- White balance, ISO and Shutter Speed
- Aperture and Depth of field
- Framing and Layering
- Background and Composition

### **Unit –II**

- Product Photography Equipment's: Backdrop, Micro lens, Tripod, Reflector, Diffuser
- Lighting: Type and features
- Lighting Techniques: One Point , Two Point and Three Point
- Telling a Story with Picture

## **References:**

- *The Art and Style of Product Photography* by J. Dennis Thomas
- *Light Science & Magic: An Introduction to Photographic Lighting (5th edition)* by Fil Hunter, Steven Biver, and Paul Fuqua
- *Masterclass: Professional Studio Photography (1st edition)* by Dennis Savini
- *The New Lighting for Product Photography: The Digital Photographer's Step-by-Step Guide to Sculpting with Light (2nd edition)* by Allison Earnest
- *Product Photography Magic (3rd edition)* by Garry Edwards
- *The Art of Photography, An Approach to Personal Expression*, by Bruce Barnbaum

## **B-GAG 507: Product Photography (Theory)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG507.1</b>	3	3	3	2	3	3	3	3
<b>B-GAG507.2</b>	3	3	3	3	3	3	3	3
<b>B-GAG507.3</b>	3	3	3	3	3	3	3	3
<b>B-GAG507.4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG507.1</b>	3	3	2	2	3
<b>B-GAG507.2</b>	3	3	3	3	3
<b>B-GAG507.3</b>	3	3	3	3	3
<b>B-GAG507.4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG507.1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG507.2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG507.3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG507.4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 508: Product Photography (Practical)**

Time: 3 Hrs.  
Credits: 3

Total Marks: 50  
Theory: 40  
Internal Assessment: 10

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Motion Design. It helps to learn the rudimentary techniques Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 508.1:</b> To Learn Techniques of Motion Graphics
<b>B-GAG 508.2:</b> Understand the basic knowledge of Motion Production
<b>B-GAG 508.3:</b> Know about the Techniques and function of Motion Graphics
<b>B-GAG 508.4:</b> To Gain Knowledge of Motion Graphics Stages

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

<b>List of Practical Exercises:</b>
Study of five product photographs
Study various platform for the purpose of product photography
Two Final Photographs of Products
One Photograph for Advertising purpose

## **B-GAG 508: Product Photography (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG508.1</b>	3	3	3	2	3	3	3	3
<b>B-GAG508.2</b>	3	3	3	3	3	3	3	3
<b>B-GAG508.3</b>	3	3	3	3	3	3	3	3
<b>B-GAG508.4</b>	3	3	3	3	3	3	2	3
<b>Average</b>	3	3	3	2.75	3	3	2.75	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG508.1</b>	3	3	2	2	3
<b>B-GAG508.2</b>	3	3	3	3	3
<b>B-GAG508.3</b>	3	3	3	3	3
<b>B-GAG508.4</b>	3	3	3	3	3
<b>Average</b>	3	3	2.75	2.75	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG508.1</b>	3	3	3	2	3	3	3	3	3	3	2	2	3
<b>B-GAG508.2</b>	3	3	3	3	2.75	3	3	3	3	3	3	3	2.75
<b>B-GAG508.3</b>	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>B-GAG508.4</b>	3	3	3	3	3	3	3	2	3	3	3	3	3
<b>Average</b>	3	3	3	2.75	3	3	3	2.75	3	3	2.75	2.75	3

## **B-GAG 509: Internship Report**

Credits: 2

Total Marks: 50

\* Students have to complete the internship of four to six weeks after the examination of 4<sup>th</sup> semester and submit the report of internship in the commencement of 5<sup>th</sup> semester. The report submitted by the students will be evaluated by the teacher appointed by the Director and a viva-voce will be conducted during practical examination.



## B-GAG 601(a): Web designing (Theory)

Time: 3 Hrs.

Credits: 4

Total Marks: 100

Theory: 80

Internal assessment: 20

**Course Objectives:** This course is designed for understanding the process of making dynamic website and use software application tools.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-MMT 601 (a).1:</b> Become familiar with web design and learn how to implement web theories into practice.
<b>B-MMT 601 (a).2:</b> Learn the Software of the web designing using Dreamweaver and CSS.
<b>B-MMT 601 (a).3:</b> Use knowledge of HTML tags and CSS code to create personal and business websites following current professional and/or industry standards.
<b>B-MMT 601 (a).4:</b> Use critical thinking skills to design and create websites.

**Note: - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.**

### Unit I

The Basic Dreamweaver Environment

Creating a site profile, the importance of a site profile

Organizing the files & folders, folder and file naming rules

Creating folders and webpage files

### Unit II

Opening a file for editing, titling pages, creating divisions

Adding headings, Paragraph vs. line breaks, tags: logical vs. physical, lists,

linking to other websites, linking to the user files, inserting images on web pages, changing images into links, adding an Email link.

### Unit III

CSS design, its types

Working of style sheet: font, margins, link colors, stylish headlines, paragraphs,

Types of images, organizing images,

Inserting and formatting tables.

### Unit IV

Form elements, Head elements, Page templates

Form objects, accessible forms

Flash elements, Multimedia contents, browser compatibility testing

Uploading the website on web, uploading changes, maintaining website

## **References:**

- Macromedia Dreamweaver 8 for Windows and Macintosh: Visual QuickStart Guide by Dori Smith; Peachpit Press. Copyright.
- Macromedia Dreamweaver 8 Unleashed by Zak Ruvalcaba; Sams Publishing. Copyright
- Macromedia Dreamweaver MX: Training from the Source, Volume 1 by Khristine Annwn Page; Macromedia Press. Copyright.
- Macromedia Dreamweaver MX Killer Tips by Joseph Lowery, Angela C. Buragli; New Riders. Copyright.
- Macromedia Dreamweaver 8: Training from the Source by Khristine Annwn Page; Prentice Hall Professional. Copyright.



## **B-GAG 602 (a): Web designing (Practical)**

Time: 3 Hrs.

Credits: 2

Total Marks: 50

Practical: 40

Internal Assessment: 10

**Course Objectives:** This course is designed for practical understanding of making a website using Dreamweaver software application.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 602 (a).1:</b> Practice for creating a webpage in Dreamweaver workspace.
<b>B-GAG 602 (a).2:</b> Understand the various tools for creating and formatting a webpage.
<b>B-GAG 602 (a).3:</b> Understand the use of CSS and HTML tags in Dreamweaver.
<b>B-GAG 602 (a).4:</b> To learn about the linking of web pages.

**Note: - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.**

<b>List of Practical Exercises:</b>
Introduction to Dreamweaver workspace.
Page setting in Dreamweaver.
Create a dynamic web page which defines all text formatting tags of HTML.
Create a Time table using Dreamweaver.
Use flash elements on webpage.
Create webpage to include image and various options related to image.
Create link on webpage using CSS.
Create a layout of webpage.
Create employee registration form using HTML tag.
Apply style sheet in Web page (inline, embedded and link)



## B-GAG 601 (b): PHP (Theory)

Time: 3 Hrs.  
Credits: 4

Total Marks: 100  
Theory: 80  
Internal Assessment: 20

**Course Objectives:** This course is designed to gain the fundamental skills necessary to create the complete Motion Design. It helps to learn the rudimentary techniques Design.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 601 (b).1:</b> Understanding the basic syntax of PHP
<b>B-GAG 601 (b).2:</b> Learn Various Object-Oriented Programing concept
<b>B-GAG 601 (b).3:</b> Understanding how server-side programing works on the web
<b>B-GAG 601 (b).4:</b> Learn how to connect to database

**Note:** - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

### Unit-I

#### Fundamental of PHP

- Introduction to PHP
- Language Basics: Identifier, Keywords, Data Type  
Operators, low Control Statement
- Function, Creating Function in PHP

### Unit –II

- Strings and Arrays
- Reading Data in Web Pages: Text Fields, Text Area, Checkbox, Radio Button, List Boxes, Password Control, Hidden control, Image Map and File Uploads.

### Unit –III

- Strings and Arrays
- Object Oriented Programming: Creating Class, Creating Objects, Setting access to Properties and methods, Public Access and Private Access

- Constructor and Deconstruct
- Inheritance
- Overriding Method & Overloading Methods

#### **Unit –IV**

- Working with Database
- SQL Database, Creating a MYSQL database
- Connecting to the database Server
- Connecting to the Database
- Updating Data base: Inserting New Items into a Database, Deleting Records

#### **References:**

- PHP Reference: Beginner to Intermediate PHP5 by Mario Lurig, Creative Commons Attribution-Noncommercial-Share Alike 3.0.
- Learning PHP, MySQL, and JavaScript: A Step-By-Step Guide to Creating by Robin Nixon, "O'Reilly Media, Inc.". Copyright.
- Beginning PHP and MySQL: From Novice to Professional by W. Jason Gilmore, Apress. Copyright
- Pro PHP Programming by Mladen Gogala, Peter MacIntyre, Brian Danchilla, Apress. Copyright





## B-GAG 602 (b): PHP (Practical)

Time: 3 Hrs.

Credits: 2

Total Marks: 50

Theory: 40

Internal assessment: 10

**Course Objectives:** This course is designed to understand various techniques of web development and will be able to design and develop a complete website.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 602 (b).1:</b> Learn how to configure PHP and Apache Web Server.
<b>B-GAG 602 (b).2:</b> Learn basic PHP syntax.
<b>B-GAG 602 (b).3:</b> Develop basic PHP programs.
<b>B-GAG 602 (b).4:</b> Use object-oriented programming concepts in program.

**Note:** - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

<b>List of Practical Exercises:</b>
Sum of two numbers.
Print prime numbers between 1 to 100.
Check number is even and odd.
Compare two strings.
Print numbers using Recursion function.
Loop through associative array.
Reverse a string.
Form Design.
OOP program.
Creating database.
Connecting to database.

## **B-GAG 602 (b): PHP (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 602 (b).1</b>	3	3	3	3	2	3	2	3
<b>B-GAG 602 (b).2</b>	3	3	3	3	2	3	2	3
<b>B-GAG 602 (b).3</b>	3	2	3	3	3	3	2	3
<b>B-GAG 602 (b).4</b>	3	3	3	3	2	3	2	3
<b>Average</b>	3	2.75	3	3	2.25	3	2	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 602 (b).1</b>	3	2	3	3	3
<b>B-GAG 602 (b).2</b>	3	2	3	3	3
<b>B-GAG 602 (b).3</b>	3	2	3	3	3
<b>B-GAG 602 (b).4</b>	3	2	2	3	3
<b>Average</b>	3	2	2.75	3	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 602 (b).1</b>	3	3	3	3	2	3	2	3	3	2	3	3	3
<b>B-GAG 602 (b).2</b>	3	3	3	3	2	3	2	3	3	2	3	3	3
<b>B-GAG 602 (b).3</b>	3	2	3	3	3	3	2	3	3	2	3	3	3
<b>B-GAG 602 (b).4</b>	3	3	3	3	2	3	2	3	3	2	2	3	3
<b>Average</b>	3	2.75	3	3	2.25	3	2	3	3	2	2.75	3	3

## **B-GAG-603 (a): VISUAL EFFECT (THEORY)**

Time: 3 Hours

Total Marks-100

Credits: 4

Theory-80

Internal Assesmen-20

**Course Objectives:** This course enables the students to learn Video Production skills and its importance for industry. This course allows student to learn Video Camera, Camera Techniques and Video Editing Techniques the content. This course allows the student to learn and practice Video Production.

<b>Course Learning Outcomes:</b>
B-GAG 603 (a).1: To Learn Techniques of Videography
B-GAG 603 (a).2: Understand the basic knowledge of Video Production
B-GAG 603 (a).3: Know about the Techniques and function of video editing
B-GAG 603 (a).4: To Gain Knowledge of Video Production Stages

**Note-**Students are required attend five questions in all. Question no. 1 is compulsory. Attempt 1 question from each of the units all question carry equal marks.

**Instructions for Paper Setter:** The paper setter will set nine questions in all besides question no.1 which is compulsory, a candidate shall attend four questions selecting 1 question each from the four units, attempting five questions in all. Question no 1 shall have four short answer type questions evenly spread over all the four units. The student shall attempt all the four questions in about 150 words each.

### **Unit-I**

#### **INTRODUCTION OF 3D VISUAL EFFECT**

- Visual Effect: Concept and Scope
- Difference: 2D VFX and 3D VFX
- History and Development of VFX
- VFX In Animation, Games and Live Action
- VFX Production Pipeline

## **Unit-II**

### **3D OBJECT**

- 3D Objects for VFX: Concept
- 3D Modeling for VFX
- Key Setup in 3d Software and modify
- Virtual Camera: Movement and Animation
- Rendering for Compositing: Process and Types

## **Unit-III**

### **Compositing:**

- 3D: Layer, Text
- Null Object: Concept and Feature
- Compositing: 2D and 3D Compositing Process
- Virtual Camera: Setup, Edit and Movements
- Particles: Types and Features
- Fire, Smoke and Rain in after effect

## **Unit-IV**

### **Dynamics in VFX**

- Dynamics: Concept and Features
- Hair and fur: Feature
- Water, Rain and Fountain
- Fire and Explosion: Feature and Process
- Environment Effect: Types and Process

## References

- Grammar of the Shot, Second Edition by Roy Thompson Christopher J. Bowen, Focal Press is an imprint of Elsevier
- Lighting for Digital Video and Television, Third Edition By John Jackma, Focal Press is an imprint of Elsevier
- Adobe Premier Pro, Classroom in a book, THE OFFICAL TRAINING WORKBOOK FROM ADOBE, By Maxim Jago
- THE TECHNIQUE OF FILM AND VIDEO EDITING: HISTORY, THEORY, AND PRACTICE, Fourth Edition BY KEN DANCYGER, Focal Press is an imprint of Elsevier
- Video Production Handbook, Fourth Edition By Gerald Millerson Jim Owens, Asbury College, Focal Press is an imprint of Elsevier
- HOW TO READ A FILM The World of Movies, Media, and Multimedia, Language, History, Theory Third Edition, Completely Revised and Expanded By Jame s Monaco, New York Oxford OXFORD UNIVERSITY PRESS



## **B-GAG 604 (a): Visual Effect (Practical)**

Time: 3 Hrs.

Credits: 2

Total Marks: 50

Theory: 40

Internal assessment: 10

**Course Objectives:** This course enables the students to learn Video Production skills and its importance for industry. This course allows student to learn Video Camera, Camera Techniques and Video Editing Techniques the content. This course allows the student to learn and practice Video Production.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 604 (a).1:</b> Understand and Practice Different Camera Techniques
<b>B-GAG 604 (a).2:</b> Able to Produce Video on Particular Topic
<b>B-GAG 604 (a).3:</b> To know and Apply Different Editing Techniques
<b>B-GAG 604 (a).4:</b> Able to do live Character Compositing

**Note: - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.**

<b>List of Practical Exercises:</b>
3D model for VFX
3D Virtual Camera movements
3D Image Compositing
Fire based VFX
Explosive concept VIDEO VFX
Environment Effect
3D object Compositing in Live Action
3D Animated Character Compositing in Live Action

## **B- GAG 604 (a): Visual Effect (Practical)**

### **CO-PO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>B-GAG 604 (a).1</b>	3	3	3	3	2	3	2	3
<b>B-GAG 604 (a).2</b>	3	3	3	3	2	3	2	3
<b>B-GAG 604 (a).3</b>	3	2	3	3	3	3	2	3
<b>B-GAG 604 (a).4</b>	3	3	3	3	2	3	2	3
<b>Average</b>	3	2.75	3	3	2.25	3	2	3

### **CO-PSO Mapping Matrix**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>B-GAG 604 (a).1</b>	3	2	3	3	3
<b>B-GAG 604 (a).2</b>	3	2	3	3	3
<b>B-GAG 604 (a).3</b>	3	2	3	3	3
<b>B-GAG 604 (a).4</b>	3	2	2	3	3
<b>Average</b>	3	2	2.75	3	3

### **CO-PO-PSO Mapping Matrix**

<b>CO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>	<b>PSO 4</b>	<b>PSO 5</b>
<b>B-GAG 604 (a).1</b>	3	3	3	3	2	3	2	3	3	2	3	3	3
<b>B-GAG 604 (a).2</b>	3	3	3	3	2	3	2	3	3	2	3	3	3
<b>B-GAG 604 (a).3</b>	3	2	3	3	3	3	2	3	3	2	3	3	3
<b>B-GAG 604 (a).4</b>	3	3	3	3	2	3	2	3	3	2	2	3	3
<b>Average</b>	3	2.75	3	3	2.25	3	2	3	3	2	2.75	3	3



## **B-GAG-603 (b): ADVERTISMENT DESIGN (THEORY)**

Time: 3 Hours

Total Marks-100

Credits: 4

Theory-80

Internal Assesmen-20

**Course Objectives:** Advertising Design serves journalism, business, art, and graphic design students interested in the creative side of advertising, especially its design aspects. The professor assumes that the students have only a modest background in art, typography, design, and production and so goes into these subjects in considerable detail. The paper will deal extensively on design, but what an ad says is what is really important, and how good it looks is secondary to how it sells.

<b>Course Learning Outcomes:</b>
B-GAG 603 (b).1: Applying the principles of design
B-GAG 603 (b).2: The creative process of Advertisement Design
B-GAG 603 (b).3: Layout Tools, Techniques, Stages and Formats
B-GAG 603 (b).4: Permanence in advertising design
B-GAG 603 (b).5: Working with art, type and color

**Note-**Students are required attend five questions in all. Question no. 1 is compulsory. Attempt 1 question from each of the units all question carry equal marks.

**Instructions for Paper Setter:** The paper setter will set nine questions in all besides question no.1 which is compulsory, a candidate shall attend four questions selecting 1 question each from the four units, attempting five questions in all. Question no 1 shall have four short answer type questions evenly spread over all the four units. The student shall attempt all the four questions in about 150 words each.

### **Unit-I**

#### **UNDERSTANDING OF ADVERTISIMENT DESIGN**

Advertising: Meaning, concept and nature,  
Types /Forms of Advertising  
Functions of Advertising  
The creative process  
Fundamentals of Design: Definition. Approaches to Design  
Centrality of Design, Elements of Design.

## **Unit-II**

### **ADVERTISEMENT LAYOUT**

Principles Advertising Design; Meaning  
Layout steps and design, Function of Layout,  
Types of Layouts; Layout Design Principles,  
Thumbnail Sketch, Story board

## **Unit-III**

### **ADVERTISING MESSAGE AND ANIMATION IN ADVERTISING**

Copy Writing; Types of Copy Writing  
Body Copy, Headlines, Subheads, Body copy, slogans,  
Radio and TV and Print advertisement script writing  
Use and importance of Animation in Advertising  
Tools and Techniques of Animation in Advertising

## **Unit-IV**

### **ADVERTISING PRODUCTION AND PRINTING PROCESS**

Conceptualization and Ideation, Translation of ideas into campaigns  
Visualization; Typography, Physical structure,  
Printing process; Process of production, color photography and color separation;  
Desk Top Publishing (DTP)  
Modern printing technologies

### **References**

1. Sandage, Fryburger and Rotzoll(1996) Advertising Theory and Practice. AAITBS Publishers
2. Stansfied, Richard: Advertising Managers Handbook. UBBSPD Publications. Third Edition
3. Advertising Handbook: A Reference Annual on Press TV, Radio and Outdoor Advertising. Different Years ATLANTIS Publications Mohan:
4. Advertising Management: Concepts and Cases. Tata McGraw- Hill Jewler, E (1998):
5. Creative Strategy in Advertising. Thomon Learning
6. Advertising Management Jethwaney, Jaishri and Jain, Shruti (2012),
7. Advertising Management, OUP India Ogilvy, David. (2001).
8. Ogilvy on Advertising, Prion. Valladares, June A. (2000).



## **B-GAG-604 (b): ADVERTISEMENT DESIGN (Practical)**

Time: 3 Hrs.  
Credits: 2

Total Marks: 50  
Practical: 40  
Internal assessment: 10

**Course Objectives:** This course is designed for understanding the practical concepts of Advertisement.

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG 604 (b).1:</b> Understand the concept of advertisement.
<b>B-GAG 604 (b).2:</b> Learn about the various multimedia components of advertisement.
<b>B-GAG 604 (b).3:</b> Learn about advertising slogan and logo for an organization.
<b>B-GAG 604 (b).4:</b> Develop audio and video advertisements for particular product.

**Note:** - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva-voce.

<b>List of Practical Exercises:</b>
To understand the graphic design elements for making an advertisement
To select the appropriate colors to the design elements
To draw/sketch the product design
To write the appropriate slogans for product ad
To create logos for the product ad
To make a clip art text gallery
To create textures for the advertisement
To create word art gallery
To record voice overs for ad jingles
To shoot video clips for product ad
To add special effects in the video ad



## **B-GAG-605: Major Project**

Credit:6

Total Marks: 150  
Practical: 120  
Internal Assessment: 30

### **Rationale**

The main idea behind Major Project is to document the experiences of students being a team member of a desktop publishing/graphic designing

/animation/audio-video production/web designing projects in a real-life environment so that s/he could learn to recognize all minor intricacies of production work. Moreover she/he can produce and refer back to the report as and when it is needed. Nonetheless it would be helpful to authenticate the projects, he has completed.

### **Introduction**

Each student shall be supposed to prepare a project report with CD/DVD (soft copy) content during the last semester of the course. The project work will be purely practical work. This report will be prepared in accordance with the format provided by the institute. Report should be printed both side with hard bound. Report should contain minimum 40-50 pages of text, graphics, visuals etc. One of the following topics will be selected for the project work:

B-GAG-605 (a) – 3D Animation Clip

B-GAG-605(b)- 2D Animation Clip

B-GAG-605(c)-Documentary

B-GAG-605(c)-Graphic Design-UI

B-GAG-605(e)-MOOC

### **Process**

Each student will write his/her report according to the following format:

- Abstract of Project (Overview)
- Synopsis
  - Idea/concept of the project
  - Story and Script
  - Treatment of the project
  - Technical equipment used
  - Workflow of the project

- Final Presentation
- Project Report
  - Written file with relevant content
  - Pre-production work
  - Final File in CD / Printed

## **Evaluation and Viva-Voce**

During the specialization project, students will work under a supervisor to be decided by the production house. In the end of the project, supervisor will sign the report. As soon the project ends student will submit two copies of the report in the institute. The evaluation of the report will be done by the expert to be decided by the Director of the institute. Apart from evaluation of report, examiner will conduct a viva-voce for judging the knowledge of student.





## **B-GAG-606: Entrepreneurship (Theory)**

Time: 2 Hrs.

Credit: 1

Total Marks: 25

Theory: 20

Internal Assessment: 05

**Course Objectives: This course is designed to develop the knowledge about entrepreneurship in the growing multimedia industry.**

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG-606.1:</b> Introduce the fundamental terms of entrepreneurship
<b>B-GAG-606.2:</b> Study of market challenges and risks
<b>B-GAG-606.3:</b> Learn the role of multimedia industry in entrepreneurship
<b>B-GAG-606.4:</b> Develop the knowledge and skills for market growth

**Note: - The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.**

### **Unit I**

- Meaning, definition and concept of Entrepreneurship
- Nature and scope of entrepreneurship
- Duties and Responsibilities of the entrepreneurs
- Challenges and risks in Entrepreneurship
- Entrepreneurship in new media
- Entrepreneurship in advertising and Public Relations-Press
- Entrepreneurship in entertainment Industry

### **Unit-II**

- Develop and polish a freelance pitch.
- Attitudes, behaviors, knowledge, and skills required for entrepreneurship
- Modern management theory and practice for planning, organizing, leading, and deploying human capital to maximize organizational and personal success.
- Technology behind multiple digital platforms.
- Managing budgets, vendors, workflow, production.

## **References**

- Funding Your Startup: And Other Nightmares Paperback by Dhruv Nath , Sushanto Mitra
- The DREAM Founder: Creating a Successful Start-up Paperback by Dhruv Nath
- Zero to One: Notes on Start Ups, or How to Build the Future Paperback by Peter Thiel , Blake Masters



## **B-GAG-607: Entrepreneurship (Practical)**

Time: 2 Hrs.

Credit: 1

Total Marks: 25

Practical: 20

Internal Assessment: 05

**Course Objectives: This course is designed to develop the knowledge about entrepreneurship in the growing multimedia industry.**

<b>Course Learning Outcomes:</b>
After completing the Course, the student will be able to:
<b>B-GAG-607.1:</b> Introduce the fundamental terms of entrepreneurship
<b>B-GAG-607.2:</b> Study of market challenges and risks
<b>B-GAG-607.3:</b> Learn the role of multimedia industry in entrepreneurship
<b>B-GAG-607.4:</b> Develop the knowledge and skills for market growth

**Note: - The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva-voce.**

<b>List of Practical Exercises:</b>
Students have to give a small business idea on the basis of market survey and also submit a report.

