# Raja Mansingh Tomar

# Music & Arts University,

Gwalior, Madhya Pradesh



2021 - 2022

# **Certificate One Year (ANIMATION) - SCHEME**

Paper	Time (In Hours)	Size	Ext. Marks	Total
THEORY (SUBJECT)				
1. History of Animation (Part – 1)	03		100	100
PRACTICAL	मिग्र कारी	कला विश्वत		
1.Photo Editing / Digital Drawing (Part – 1)	03	Taller Taller	100	100
2. 3D Animation (Part – 1)	12		100	100
TOTAL			12	300
TOTAL	नादबह रूपबहा	शब्दबह्म उपास्महे ARTS UNIVERSITY	CMALIOR	

Dr. S. K. Mathew H.O.D Applied Arts & Animation RMT University, Gwl A Commission

Dr. Gauri Shankar Chauhan Assistant Professor Fine Arts & Music Department DDU Gorakhpur University, Gorakhpur Sonali

# Certificate One Year (ANIMATION) - PRACTICAL

#### 1. PHOTO EDITING / DIGITAL DRAWING

Introduction & history of Drawing, types of drawing, Line, type of lines. Tone, Texture, Space, tools, Polygon, Eve level, 2D & 3D Drawing, Elementary perspective, Study from man- made objects, Study of human forms, light and shades, Principles of design, definition of raster graphics, understanding pixel and resolution. Application of Adobe Photoshop, Basic selection tools, color correction, edit Photoshop, trick photos

# 2. 3D ANIMATION

(MODELING) About the Software, tools, Shortcuts, Surface Modeling, Polygon Modeling

(TEXTURING) Texturing and Uses of texturing, basic color, Basic of assign materials, UV unwrapping, UV mapping, Create textures in Photoshop.

(LIGHTING & RENDERING) About Lighting & Rendering, Types of Lighting, Software & Mental ray rendering & lighting

(ANIMATION) Principle of Animation, Types of Animation

TOMAR MUSIC

- Work done in the class during the college / University hours shall be accepted for submission.
- Student shall have to submit one sessionals of each subject to the university / college.

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# Certificate One Year (ANIMATION) - THEORY - History of Animation - Paper - I

#### **Introduction of drawing & Sketching**

Introduction & history, types of drawing, Free drawing, geometrical drawing, representational drawings, contour drawing, gesture, drawing, nature drawing, object drawing, Observation of a scene, object & environment, Line, type of lines, straight, curved, converging, dotted, zigzag, soft and hard lines, Definition of colors, classification of colors: - primary colors & secondary colors, Tone: - Light tone, middle tone, dark tone, shadow & Depth, Texture, Space, Introduction to the equipment (tools), Polygon:- Circle, square, rectangle, triangle, cylinder, Line Drawing, object study, Eve level, Angle view: - Front & Back view, Top & Bottom view, Side view (Right & Left), 2D & 3D Drawing

# **Drawing from Objects**

Elementary perspective: - H.L - V.P, 1 point, 2 point, 3 point perspective, Object Drawing: - Drawing form, geometric forms, Study from man- made objects, Projections

#### **Human anatomy**

Study of human forms, general forms and gesture, drawing from cast & figure – light and shades, basic properties, Balance – standing still or motion – perspective.

क्रपबद्धा स्रपास्मह

# Introduction and Importance of Story Boarding

The art of story boarding, Story development, Character designing and development, Script Writing, Types of Script, Camera Angle, Timing / Spacing, Dialog Delivery – audio and video, Ideas of Visual concept

# **Adobe Photoshop (Basic)**

Principles of design, role of image in animation, definition of raster graphics, understanding pixel and resolution, file format & operation, Application of Adobe Photoshop in raster graphics design, size of the canvas as per requirement – print / 2D Animation

Basic selection tools, layers, dodge and burn tools, brushes, filters, channel, color correction, color modes, layer mask, raster mask, vector mask, compositions, edit Photoshop, trick photos, mate painting, digital paintings.

# **Autodesk Maya (Modeling)**

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About the Maya Software, Maya tools, Maya Shortcuts, Surface Modeling, Primitives guruj, cowboy hat, pocket watch, Objective modeling, Background modeling, Polygon Modeling, Objective Modeling, Background Modeling, Organic Modeling

#### **Texturing**

Texturing and Uses of texturing, Basic color on object, Lambert, blin, Phong & Phong E, Basic of assign materials, UV unwrapping, UV mapping, Create textures in Photoshop, assign texture on objects, on B.G. Models, organic & inorganic models.

#### **Lighting & Rendering**

About Lighting & Rendering, Types of Lighting, Describe all types of Light - Ambient Light, Point Light, Area Light, Directional Light, and Volume light, Maya Software & Mental ray rendering & lighting, Physical sun and sky, Image based lighting

#### Animation

Principle of Animation, Types of Animation, Ball animation, Walk cycle, walk animation



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Sonali

# Raja Mansingh Tomar

# Music & Arts University,

Gwalior, Madhya Pradesh



2021 - 2022

# Certificate One Year (APPLIED ARTS) - SCHEME

Paper	Time (In Hours)	Size	Ext. Marks	Total		
THEORY (SUBJECT)						
1. History of Animation (Part – 2)	03		100	100		
PRACTICAL	ंभीत एवं	कला विश्व				
1.Photo Editing / Digital Drawing (Part - 2)	03	विवास खाल ।	100	100		
2. 3D Animation (Part – 2)	12		100	100		
TOTAL				300		
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Dr. Gauri Shankar Chauhan Assistant Professor Fine Arts & Music Department DDU Gorakhpur University, Gorakhpur Sonali

# Diploma One Year (ANIMATION) - PRACTICAL

# 1. PHOTO EDITING / DIGITAL DRAWING (Part - 2)

Study of light & shading, Human anatomy, Study of heads, features and faces, Study of human figures, Study of human anatomy, Clay Modeling, Character Designing & Development (Realistic, Semi – realistic, cartoon), Adobe Editing (Basic to Advance)

# 2. 3D ANIMATION (Part - 2)

(ADVANCE MODELING) About the Software, tools, Shortcuts, Surface Modeling, Polygon Modeling

(ADVANCE TEXTURING) Texturing and Uses of texturing, basic color, Basic of assign materials, UV unwrapping, UV mapping, Create textures in Photoshop.

(ADVANCE LIGHTING & RENDERING) About Lighting & Rendering, Types of Lighting, Software & Mental ray rendering & lighting

(ADVANCE ANIMATION) Principle of Animation, Types of Animation

नादबहा शब्दबहा रूपबहा उपास्महे

- Work done in the class during the college / University hours shall be accepted for submission.
- Student shall have to submit one sessionals of each subject to the university / college.

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#### Diploma One Year (Animation) - THEORY - History of Animation (Part - 2) - Paper - I

#### Study of light & shading

Type of light: - Natural Light & Artificial Light, Light & shading of basic solid objects, Color lights, Observing and studying in various rendering media and techniques at various light conditions, Shadow & reflections: - Shading: - light weight even shading, heavy direction, open shading, gradients and techniques, Value scales: - Highlights, light, half tone, shades, cast shades and reflection light, high & low key, lightness and darkness

#### **Human anatomy**

Study of human forms, general forms and gesture, drawing from cast & figure – light and shades, basic properties, Balance – standing still or motion – perspective.

#### Study of heads, features and faces

Planes and forms – cube and oval constructions, Study of basics state and human extremities. i.e. eye, ear, nose, mouth, Comparisons, Perspective – the head above eye level, below eye level.

#### Study of human figures

Hands and feet, Rhythm and grace – rhythmic forms, symmetry, imaginary inner curve.

#### Study of human anatomy

The skeleton – the skull, spinal column, shoulder girdle, pelvic, arms, leg and skeletal proportions

Muscles – muscles of the head, surface forms of the head, neck, arm, leg and further observation on surface forms

# **Clay Modeling**

Formation of clay, Basic shape & construction

# Character Designing & Development (Realistic, Semi – realistic, cartoon)

Model Sheet, Facial Expression, Balance & Posing, Coloring & Finishing, Set designing & Background designing

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#### **Introduction and Importance of Story Boarding**

The art of story boarding, Story development, Character designing and development, Script Writing, Types of Script, Steps of Script, Screen Play, Camera Angle, Timing / Spacing, Dialog Delivery – audio and video, Ideas of Visual concept.

#### Adobe Photoshop (Basic to Advance)

Principles of design, role of image in animation, definition of raster graphics, understanding pixel and resolution, file format & operation, Application of Adobe Photoshop in raster graphics design, size of the canvas as per requirement – print / video / Animation, Basic selection tools, layers, dodge and burn tools, brushes, filters, channel, color correction, color modes, layer mask, raster mask, vector mask, compositions, edit Photoshop, trick photos, mate painting, digital paintings, Theory of logo design, Scene composition, background designing & development, Character development and designing, Concept art, Photo based art

#### 3D Animation (Modeling)

About the Software, tools, Shortcuts, Surface Modeling – Primitives guruj, cowboy hat, pocket watch, Objective modeling - Background modeling, Polygon modeling - Objective Modeling, Background Modeling, Organic Modeling

#### **Texturing**

Texturing and Uses of texturing, Basic color on object, Lambert, blin, Phong & Phong E, Basic of assign materials, UV unwrapping, UV mapping, Create textures in Photoshop, assign texture on objects, on B.G. Models, organic & inorganic models.

# **Lighting & Rendering**

About Lighting & Rendering, Types of Lighting, Describe all types of Light, Ambient Light, Point Light, Area Light, Directional Light, Volume light, Software & Mental ray rendering & lighting, Physical sun and sky, Image based lighting

# **Rigging & Animation**

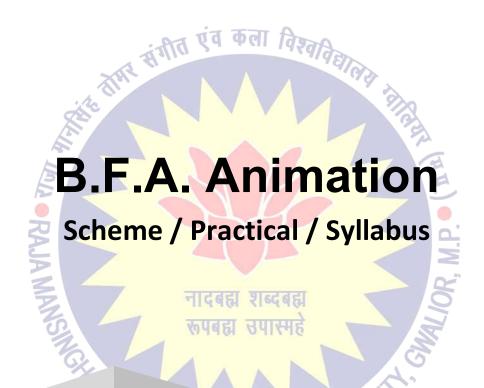
IK & FK handle tool, Joint, Skeleton, Principle of Animation, Ball animation, Walk cycle, walk animation, Run and jump animation, Pose to pose animation

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# Raja Mansingh Tomar

# Music & Arts University,

Gwalior, Madhya Pradesh



2021 - 2022

# B.F.A. Ist Year - FINE ARTS (Applied / Animation / Painting / Sculpture) - SCHEME

Paper	Time (In Hours)	Size	Ext. Marks	Midterm/CCE	Total	
THEORY (SUBJECT)						
1. History of Art	03		75	25	100	
2. Fundamental of Art	वंगी03एव	कला विश्ववि	75	25	100	
PRACTICAL		AA	1			
1. Drawing	03	1/4 Imperial	75	25	100	
2. Painting / Composition	06	1/4 Imperial	75	25	100	
3. Applied Art	06	1/4 Imperial	75	78, M.F 25	100	
4. Sculpture	06 448	8"X10"	75	25	100	
TOTAL			A.		600	
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# **B.F.A. Ist Year (FINE ARTS) - PRACTICAL**

#### 1. DRAWING

Man Made Object and Subject related to nature (Animal, Birds, and Vehicle Etc.)

#### 2. PAINTING / COMPOSITION

Painting - Still Life & Nature Study

Composition - Animal, Birds, and Human Figure, Antique study in

pencil

3. APPLIED ARTS

Roman Alphabets - Serif, San-serif (English), Gothic Style of lettering.

Devnagri Letters - Hindi and Script Writing.

# 04. SCULPTURE

Decorative and Geometrical design (Relief), Human body parts (Nose, Eye and Ears) Simple Composition with the use of human Figures and other forms (Nature, Animals, Birds)

#### \*NOTE\*

- 1. Make 05 Sheets / Work each on each subject Topic.
- 2. Use Poster & Water Color in Drawing & Painting Subject.
- 3. Use Pencil & Pencil Color in Composition Subject.
- 4. Use Clay & P.O.P in Sculpture Subject.
- Work done in the class during the college / University hours shall be accepted for submission.

• Student shall have to submit one sessionals of each subject to the university / college.

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# B.F.A. Ist Year (FINE ARTS) - THEORY (History of Art - Paper - I)

#### UNIT - I

Prehistoric Cave Paintings – Bhim Betika, Mirzapur, Raigarh, Pachmari, Hoshangabad, Velari, Singhampur.

Ancient Period – Jogimara, Bagh (Technique, Subject Matter and Paintings)

Ancient Period – Ajanta (Techniques of Ajanta Murals, Subject matter, Paintings in vihars and their characteristics)

#### UNIT - II

Ancient Period – Ellora, Badami (Techniques, subject matter and important paintings)
Ancient Period – Sittanvasal, Sigeria (Techniques, Subject matter and Important Paintings).
Aprabhansha (Jain, Pal, Gujrat, Paschmi, Malva)

#### **UNIT - III**

Development of miniature Paintings (Techniques), Pahari and Rajasthani Rajasthani Period – Mewar, Kota, Bundi, Kishan garh, Jaipur, Shekhavati, Bikaner, Aamair.

#### **UNIT - IV**

Early Mughal Period – Babar, Humayun (Style, Techniques, Subject Matter and Characteristics). Mughal Period – Ashoka, Janhagir, Shahjanha, Aurangjeb (Style, Techniques, Subject matter, Characteristics and Artists).

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#### UNIT - V

Pahari Style – Basholi, Kangda, Chamba, Jammu, Guller, kullu.
Bundelkhand – Datiya, Orchha and Maratha (Subject matter, Characteristics, Techniques)
Wall Paintings and Miniature Paintings.

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# B.F.A. Ist Year (FINE ARTS) - THEORY (Fundamental of Art - Paper - II)

#### UNIT - I

What is art, Definition of Art, Importance and aim, 06 Limbs of Paintings.

#### UNIT – II

Elements of Art (Line, Form, Colors, Tone, Texture and Space). Bifurcation of Art

#### UNIT - III

Theory of Composition (Unity, Harmony, Balance, Dominance, Rhythm, Proposition). Creative Process (Observation, Perception, Imagination, Expression)

#### UNIT – IV

Perspective
Definition of Sculpture, Main Characteristics of Ancient Indian Sculpture

#### UNIT – V

Drawing and Rendering (2D and 3D Rendering)
Source of Indian Art with special reference to – Vishnu Dharamuttar, Puran's, Chitrasutram chapter

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# **B.F.A. IInd Year (Animation) - SCHEME**

Paper	Time (In Hours)	Size	Ext. Marks	Midterm/CCE	Total	
THEORY (SUBJECT)						
1. History of Art	03		75	25	100	
2. History of Animation	03	TT 7	75	25	100	
PRACTICAL	वंगीत एव	कला विश्वति	m.			
1. FIGURE ANALYSIS, LIFE DRAWING & DYNAMIC ANATOMY.	18	Full Imperial	75	25	100	
2. PRINCIPLES OF ANIMATION, ACTION ANALYSIS	18	Full Imperial	75	25	100	
3. STORY DEVELOPMENT & DIMENSIONAL DRAWING, ANIMATION & LAYOUT	18	Full Imperial	75	708, M.P. 52	100	
4. INTRODUCTION TO DIGITAL TOOL	12	म जनारगढ	75	25	100	
TOTAL			VEK2		600	
MUSIC & ARTS UNIV						

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# **B.F.A. IInd Year (Animation) - Practical**

#### 1. FIGURE ANALYSIS, LIFE DRAWING & DYNAMIC ANATOMY

Human Anatomy: Anatomy of different age groups (Babies, Kids, Teens, Young Adults, and Aged). Basic Proportions, Basic understanding of the skeletal and muscle system, Human forms in perspective. Male and female anatomy. Body Structure .Proportion and construction of body parts (Torso, Face, Eyes, Nose, Ears, Mouth, Hand, Feet etc.) Motion analysis, Study of poses. Anatomy of animals, birds, reptiles. Body structure: Basic forms, Proportion, and construction of body parts: head, legs, tails. Use of perspectives while drawing animals, birds, reptiles, and Insects. Understanding motion and grace.

# 2. PRINCIPLES OF ANIMATION, ACTION ANALYSIS

Twelve Principles of Animation (Timing, Ease In and Out (or Slow In and Out), Arcs, Anticipation, Exaggeration, Squash and Stretch, Secondary Action, Follow Through and Overlapping Action, Straight Ahead Action and Pose-To-Pose Action, Staging, Appeal, Personality).

Arcs of motion, hook-up, & in-between, wave principal, S & C curve, follow through, & overlap Action. Posing and Gesture, blocking performance through thumbnails. Rough in-between, key frames. Character design & Character rotation. Turn around character developed both human & animal. Hook-up, In-between, Wave principal, S and C, Posing and Gesture curve

Mannequin for animation using basic shapes, Principles of the anthomorphic walking character, Extension and Application of Animation concepts, Create mouth shapes that synchronize with supplied dialogue.

Anthomorphic Walking Character, Walk Cycle, Head Turn and Lip Sync, Flour Sack Assignment, Animate flour sack, Output using line test camera.

# 3. STORY DEVELOPMENT & DIMENSIONAL DRAWING, ANIMATION & LAYOUT

Analysis in Visual Storytelling, Fundamental Elements of Story, Storyboards - Layout Analysis, Color Analysis, Lighting Analysis. Principles of Composition, Perspective, Camera - Position /Angles, Types of Layout, Level separation (Foreground, middle ground, background).

# 4. INTRODUCTION TO DIGITAL TOOL

Introduction to hardware and software - Digital asset management and directory structure, Pros and Cons of Digital Animation, Digital vs. Analogue, Screen resolution: NTSC, Wide-screen, PAL

ADOBE PHOTOSHOP - Introduction to Photoshop, Using Layers, Using the scanner, Raster vs. Vector graphics, RGB vs. CMYK, Output formats and file compression, Additional tools and workflows, Using Alpha Channels and Layer Masks

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FLIPBOOK - Shooting, Timing, Scrubbing, Light Bulb feature, Cycle, Exporting, Coloring, Exporting Frames

TOONBOOM STORYBOARD PRO - Introduction to Storyboard Pro, Introduction to Animate Pro, Paperless traditional animation, Additional tools and work-flows, Working with textures, pegs and interpolation, Multi-plane backgrounds, Camera moves.

ADOBE FLASH – Make a sequence using flash.

ADOBE PREMIERE - Introduction to Premiere Pro, Scene editing and transitions, Working with sound

# SUGGESTED READING

- 1. Animation from Pencils to Pixels: Classical Techniques for the Digital Animator by Tony White
- 2. Adobe Flash Professional CS5 Bible by Todd Perkins
- 3. Animate to Harmony: The Independent Animator's Guide to Toon Boom by Adam Philips
- 4. Color by Betty Edwards
- 5. Animation Survival Kit by Richard Williams
- 6. Carton Animation by Preston Blair
- 7. Timing for Animation by Harold Whitaker
- 8. An Atlas of Animal Anatomy for Artists by W. Ellenberger
- 9. Animal Anatomy for Artists: The Element of Form by Goldfinger
- 10. Adobe Photoshop CS6 Bible by Lina Danae Dayley
- 11. Animate to Harmony: The Independent Animator's Guide to Toon Boom by Adam Phillips
- 12. The Animation Book: A Complete Guide to Animated Filmmaking--From Flipbooks to Sound Cartoons to 3- D Animation by Kit Laybourne
- 13. Perspective Drawing Handbook by Joseph D Amelio
- 14. Film Directing: Visualizing from Concept to Screen (Michael Weiese Production) by Steven Katz
- 15. Five C's of Cinematography Motion Picture Filming Techniques by Joseph V. Mascelli
- 16. An Atlas of Anatomy for Artists by Fritz Schider, Anatomy & Drawing by Victor Perad.
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Principal Rahini College of Art & Design, Mhow, Indore

# B.F.A. IInd Year (Animation) - Syllabus - History of Animation - Paper - II

#### UNIT - I

Pre-Cinema Visual Entertainment-puppets, magic lantern, comics, "The Persistence of Vision," flipbooks, the thaumatrope, the phenakistoscope, the zoetrope, Emile Reynaud and his Praxinoscope, the significance of the shutter to motion pictures. The Mechanics of Motion Pictures and the First Films, Legendary Women in Animation, Early Stop Motion Animation.

#### UNIT – II

Walt Disney's Beginnings - The Silent Era, MGM, Warner Brothers, Dream Works. The History of Indian Animation, Brief History of Russian Animation and Japanese Animation. Recent International Animation: Major Figures & Films – Ratatouille, Ice Age, Shrek, Up, Wall-E, Chicken Run, One Punch Man, Dragon Ball Super, Toy Story, How to Train Your Dragon, Shingeki noKyojin, Inside Out, The Polar Express, Chota Bheem, The Take of Princess Kaguya

# UNIT – III

Twelve Principles of Animation (Timing, Ease In and Out (or Slow In and Out), Arcs, Anticipation, Exaggeration, Squash and Stretch, Secondary Action, Follow Through and Overlapping Action, Straight Ahead Action and Pose-To-Pose Action, Staging, Appeal, Personality). Arcs of motion, hook-up and in-between, wave principal, S and C curve, follow through and overlap Action.

Proportion, Balance, Weight and Silhouette, What is Arc of movement? Its uses. Its importance in animation. Basic Principals of Animation in relation with walk cycle - Timing, staging, arc of motion, mass, and weight, center of mass, path of action, squash, and stretch

#### UNIT – IV

Different types animation - Rough in-between, key frames, (pose to pose) and straight-ahead animation, Principles of the anthomorphic walking character. Character Types and their responses to aging. Types of Animation - Types of Animation, cell/paper animation, digital Animation, 3d Animation, puppet Animation, Clay Animation etc. Intro and Workflow Theory. Differences between Paperless Animation and Traditional Animation.

#### UNIT - V

Computer graphics; Definition of Computer graphics, Introduction to Raster & Vector Graphics, 3D computer graphics, Pixel, Resolution, Render, Anti-aliasing. Color Theory & Modes; Color Models (Additive Primary Colors & Subtractive Primary Colors), Color Modes; RGB, CMYK, Grey Scale, Indexed Color, etc., Primary color, Secondary & Tertiary Color, warm & cool color. Term definition: Hue, Saturation, tint, Brightness, Tone, Shade, Chrome.

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#### **SUGGESTED READING**

1. Understanding Animation by Paul Wells. 2. Cartoon Capers: The History of Canadian Animators by Karen Mazulewich, Bendazzi. 3. Cartoons: One Hundred Years of Cinema Animation by G Bendazzi. 4. Carton Animation by Preston Blair. 5. Timing for Animation by Harold Whitaker. 6. The Animators Survival Kit by Richard Williams. 7. Principles of Color by Faber Birren



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Sonali

# **B.F.A. IIIrd Year (Animation) - SCHEME**

Paper	Time (In Hours)	Size	Ext. Marks	Midterm/CCE	Total
THEORY (SUBJECT)					
1. History of Art	03		75	25	100
2. Acting for Animation	03	कला विश्वति	75	25	100
PRACTICAL	11-11-	110	9/AP		
1. FIGURE ANALYSIS – MORPHING, CHARACTER DESIGN	18	1½ Imperial	75	25	100
2. VISUAL DEVELOPMENT, SEQUENTIAL NARRATIVE & DIGITAL LAYOUT PAINTING	18	1½ Imperial	75	25	100
3. 2D APPLICATIONS	18 दब	झ शब्दबहा	75	<b>8</b> 25	100
4. 3D MODELING & RIGGING, ANIMATION & LEICA REEL	12	प्र उपास्महे	75	25	100
TOTAL			2051		600
MUSIC & ARTS UNIVERSITY					

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# B.F.A. IIIrd Year (Animation) - Practical

#### 1. FIGURE ANALYSIS – MORPHING, CHARACTER DESIGN

Morphing object, shapes, and alphabets. Lip synch principles, Lip Synchronization – Use Exposure sheet, Caricature, Animating clothing, Character designing, Features of a character, Types/Kinds of characters, Designing props and assets of character, Creating turnarounds/Character model sheets, Blueprints, Character size comparison charts, Character attitude poses, Clay sculpture

# 2. <u>VISUAL DEVELOPMENT, SEQUENTIAL NARRATIVE & DIGITAL LAYOUT PAINTING</u>

Animation- dialogue and design, Beat boards and character sketches Storyboard pitches, Exterior study with painting (outdoors), effect of light on mood, layout with vertical panning, layout with horizontal panning, BG layout with color of interior. Multi-plane layout, Layout package, and labeling, Case Study of movies – Study the layouts & style of the following movies. Introduction to advanced concept art. Create television storyboards & sequences of feature storyboards using professional terminology & templates.

#### 3. 2D APPLICATIONS

Introduction and Workflow Theory, Paperless Drawings and Color Management, Use of Camera and Pegs, Symbol Based Animation.

PHOTOSHOP - Horizontal Pans and Working with Underlay and Overlays, TOONBOOM ANIMATE PRO - Camera moves & Compositing effects, Introduction to Cut-Out Animation, Cut-Out character break-down and rigging & Cut-Out animating, FLASH - Motion Twins and Shape Twins & 3D Transformation - Inverse Kinematics

# 4. 3D MODELING & RIGGING, ANIMATION & LEICA REEL

Introduction to Maya and 3ds max.3D Modeling Interface, use of mouse and keyboard, basic tools to be used in creating polygonal shapes and models. Descriptions of polygons, and the elements that make up a polygon in Maya, such as vertices, edges, faces, and UVs. Overview of file keeping, saving files and workspace views. Moving, scaling, rotating and placement of objects in the 3D environment. 3D character modeling, environment modeling, fur, hair, Flag stimulation, Character Rigging, Texturing, Lighting, Rendering.

# SUGGESTED READING

1. Dream Worlds: Production Design for Animation by Don Hahn

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- 2. Setting the Scene: The Art & Evolution of Animation Layout
- 3. Layout & Composition for Animation by Ed Ghertner
- 4. How to write for animation by Jeffrey Scott
- 5. Digital Modeling by William Vaughan
- 6. Maya Character Creation: Modeling and Animation Controls by Chris Maraffi
- 7. Rig it Right! Maya Animation Rigging Concepts by Tina O'Hailey
- 8. Character Design from the Ground Up: Make Your Sketches Come to Life by Kevin Crossley
- 9. Creating Characters with Personality: For Film, TV, Animation, Video Games, and Graphic Novels by Tom Bancroft
- 10. A History of Costumes by Carl Kohler
- 11. Character Costume Figure Drawing: Step-by-Step Drawing Methods for Theatre Costume Designers by Tan Huaixiang
- 12. Animation from Pencils to Pixels: Classical Techniques for the Digital Animator by Tony White
- 13. Mastering Autodesk Maya 2516: Autodesk Official Press by Todd Palamar
- 14. How to Cheat in Maya 2514: Tools and Techniques for Character Animation by Kenny Roy
- 15. Mastering Autodesk 3ds Max 2513 by Jeffery M. Harper
- 16. Autodesk 3ds Max 2514 Bible by Kelly L. Murdock

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# B.F.A. IInd Year (Animation) - Syllabus - Acting for Animation - Paper - II

#### UNIT - I

History of Acting

#### UNIT - II

Stage Actor Versus Animator, Illusion of life vs. Moving Illustration.

#### **UNIT - III**

Seven Essentials Acting Principles, Animation Dialogue

#### **UNIT - IV**

Movement & Body Language. Importance of Body Language.

#### UNIT – V

Character Tempo & Rhythm

# **SUGGESTED READING**

Acting for Animation by Ed Hooks

A Comment

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# **B.F.A. IVth Year (ANIMATION) - SCHEME**

Paper	Time (In Hours)	Size	Ext. Marks	Midterm/CCE	Total
THEORY (SUBJECT)					
History of Art / Aesthetics	03	एंव कला विश्	75	25	100
2. VISUAL EFFECTS, DIGITAL COMPOSITING MOTION CAPTURE	03		75	25	100
PRACTICAL				N id	
1. STOP MOTION SET & CHARACTER DESIGN	18	½ & Full Imperial	75	25	100
2. STOP MOTION ANIMATION	18	ादबहा शब्दबहा पबहा उपारमहे	75	25	100
3. VISUAL EFFECTS	18		75	25	100
4. PROJECT 3D SHORT FILM PROJECT	AR MUS	50 Pages (minimum) A4 Size & Show reel	75	25	100
TOTAL					600

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# B.F.A. IVth Year (ANIMATION) - Practical

#### 1. STOP MOTION SET & CHARACTER DESIGN

Types of stop motion animation, set creation for different types of stop motion, character construction for stop motion. Camera and light set up.

#### 2. STOP MOTION ANIMATION

Make a short film in various type of stop motion animation.

#### 3. VISUAL EFFECTS

After Effects, Pf Track, Nuke, Fusion, Mocha, Real Flow

#### 4. PROJECT 3D SHORT FILM PROJECT

Make a 3d animated short film using MAYA. VFX has to be used.

#### SUGGESTED READING

- 1. Nuke 101: Professional Compositing and Visual Effects by Ron Ganbar.
- 2. Creating Motion Graphics with After Effects: Essential and Advanced Techniques by Chris Meyer.
- 3. ADOBE AFTER EFFECTS CS6 Classroom in a Book by Adobe Creative Team.
- 4. Visual Effects and Compositing by John Gress.
- 5. Masters of FX: Behind the Scenes with Geniuses of Visual and Special Effects by Ian Failes.

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# B.F.A. IVth Year (Animation) – Syllabus – VISUAL EFFECTS, DIGITAL COMPOSITING MOTION CAPTURE – Paper – II

#### UNIT - I

Intro to the Motion Picture/VFX Pipeline. What is movie making & VFX? Principles of motion picture & VFX. Origins of Visual Effects & VFX concepts. Structure of Digital Images —The Pixel, Grayscale Images, Colour Images & Four Channel Images. Different of Visual & Special effects, Image Resolution, Image Aspect Ratio, Pixel Aspect Ratio, Display Aspect Ratio, Bit Depth, Floating Point, Photographic Images vs. Graphics.

#### UNIT - II

The tools of Cinematography – The frame, the lens, light and colour, texture, movement, establishing, point of view. Shooting methods – What is cinematic, the frame, cinema as a language, master seen method, coverage, overlapping or triple take method, free form method

#### **UNIT - III**

Cinematic Continuity – Shooting for editing, Types of continuity, The prime directive, screen direction, issues in continuity, types of cuts – Content cut, action cut, POV cut, Match cut, conceptual cut, zero cut. Camera Movement – Types of moves, Moving shots, camera mounting, the crab dolly, cranes, car shots, aerial shots, other types of camera mounts

#### **UNIT - IV**

Rotoscoping, Motion Tracking & 2D Match moving – The golden rules of roto, Types of 2D motion tracking, comparing good & bad tracking targets & 2D motion tracking applications. How 3D CGI is created & its applications. 3D motion tracking & its applications.

#### UNIT - V

Compositing –Compositing Applications, Layer Based Compositors, Nodal Based Compositors, Keyer Types & Concepts. Different between live action & CGI. What is Blue screen & Green screen? & their use in VFX. Methods of warping & morphing

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