



JSS COLLEGE OF ARTS, COMMERCE AND SCIENCE

(AUTONOMOUS)

OOTY ROAD, MYSORE-570025

DEPARTMENT OF COMPUTER SCIENCE

Career Oriented Course in

ANIMATION & VISUAL EFFECTS

SEMESTER SCHEME

2017-18 SCHEME

**PROFORMA FOR THE SCHEME OF STUDY AND EXAMINATION OF THE CAREER-ORIENTED
CERTIFICATE COURSE IN ANIMATION & VISUAL EFFECTS**

Semester	Paper and title	Tutorial Hrs. / Week	Practical Hrs/ Week	Duration of theory exam	Duration of practical exam	Marks for the theory exam	Marks for the practical exam	Internal assessment marks Record	Internal assessment marks practical	Total marks for each subject
I	Basics of Arts and Pre-Production, Classical Animation	1	3	1	P2.30.hrs.	20	60	10	05+05	100
II	Digital Media Technologies	1	3	1	P2.30.hrs.	20	60	10	05+05	100
TOTAL										200

NOTE:

- LA- 20 marks based on continuous assessment.
- Term-end examination - Duration is 3 hours for 80 marks having two parts,

PART-A and PART-B

PART-A Theory oriented questions for 20 marks

PART - B Practical oriented questions for 60 marks which is split as

Practical implementation 50 marks

Record 10 marks

Program Outcomes:

PO 01: Demonstrate proficiency in the field of Animation & Multimedia / Advertise & Film

PO 02: Demonstrate the ability to justify and explain their thinking and/or approach.

PO 03: Apply the scientific method to design, execute, and analyze an experiment

PO 04: Develop state-of-the-art laboratory and professional communication skills

I SEMESTER
PAPER I
BASICS OF ARTS & PRODUCTION 4 Hours / week

Course Outcomes (COs):

After completing this course satisfactorily, a student will be able to:

- Acquire the knowledge and skills in the Basics of Freehand drawing elements.
- Acquire knowledge and skills in Lighting & Shading.
- Acquire the knowledge and skills of Drawing charter and related Automation software.
- Demonstrate full-fledged Charter designing activities.

UNIT 1 Sketch and Landscape

Draw objects found in public places, human figures, faces, trees, flowers. Students should visit monuments, lakes, roads, pavements and places of architectural and aesthetical importance. They should know how to draw these objects by observing them.

Head Construction of Male and Female: -Eyes-Ear-Nose-Lips-Skull

Body Proportions and details of Male and Female: -Neck-Arms Hands-Torso-Legs-Feet

UNIT 2 Light and Shades

Basic solid objects Establish relationship between solid objects and human figure Use of background to enhance figure Highlight, middle tone, shadows, reflected, cast shadow

Musculo-skeletons Basic Muscular structure Significance of Skeletons in understanding body proportions and movements -Proportional difference between male and female Advanced Life

UNIT 3 Drawing

Hand Gestures, Facial Expression, Body Postures

Volume Construction (Simple Blocks and Cylinder, twisting of blocks)

Line of Action, Balance, rhythm Use of mannequin

Introduction of Animation: Storyboarding - Preliminary storyboard - Sequence storyboard - Animatics

UNIT 4 Character Design

Students should design characters according to the story. All aspects of character like his emotions, behavior, personality and background has to be considered in order to design physical and mental outlook of character.

Layout: Students should understand designing principles of visual art and should be able to compose characters and background objects aesthetically in accordance with story board.

Background: Background objects minus character are given proper colors in accordance with story board.

Practical Assignments

1. Draw straight, curved and rhythmic lines

2. Draw circle, oval
3. Draw box in I-point perspective
4. Draw box in 2-point perspective
5. Draw box in 3-point perspective
6. Draw railway tracks in I-point perspective
7. Draw simple house (walls, porch, doors and windows in 2-point perspective)
8. Draw skyscraper in 3-point perspective I
9. Draw primary objects (rectangular, cubic, and cylindrical)

-box

-cylinder

-bath soap

-toothpaste

-matchbox

-flower pot

Place box on table and draw its outline on A4-size paper. Then draw it on another paper and fill it with pencil shades. Now draw it again on another sheet and fill color and texture.

Likewise do for the above-mentioned objects. Likewise multiple objects to be placed in aesthetic composition and drawn

10. Draw organic object: Fruits –orange –apple –banana –grapes –pineapple -coconut

Vege~,able –onion -capsicum-ladyfinger-gmger-garlic-tomaro with chilly

REFERENCES

1. Industry Standard VFX Practices and Procedures” by Susan Zwerman and Jeffrey A Okun
2. Design for Motion: Fundamentals and Techniques of Motion Design
3. Universal Principles of Design
4. The Illusion of Life
5. The Animators survival kit
6. The VES Handbook of Visual Effects: Industry Standard VFX Practices and
7. Procedures” by Susan Zwerman and Jeffrey A Okun
8. The VES handbook of Visual Effects: Industry Standard VFX Practices and Procedures Edited by Jeffrey A. Okun and Susan Zwerman
9. The Art and Science of Digital Compositing, Second Edition: Techniques for Visual Effects, Animation and Motion Graphics (The Morgan Kaufmann Series In Computer Graphics) by Ron Brinkmann
- 10 . The Visual Effects Arsenal: VFX Solutions for the Independent Filmmaker by Bill Byrne

Total Marks 80: Practical: 60(Theory) +20 (Internal Assessment-Test)

Course Outcomes (COs):

After completing this course satisfactorily, a student will be able to:

- Acquire the Basic knowledge of Image Editing Concepts & Management.
- Acquire knowledge and skills in image Processing activities.
- Acquire the knowledge and skills of Image Layers & 3d Image editing.
- Demonstrate to build full-fledged 2d Animated movie.

Chapter	Description
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UNIT 1	Introduction: Image Editing Concepts
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Workspace-environment Introduction to workspace Navigating in Photoshop Customising the Interface
The Preference panels

Image Management: Size versus resolution Changing the printing resolution, Changing the Page Layout
Resolution Knowing the Best Resolution, The Resolution of Screen Images Opening, duplicating and saving
images Using the Bridge Saving an Image to disk File format roundup Adding annotations Resampling and
Cropping Using the Analysis menu tools Creating Custom Actions

Painting and Brushes: Painting and Editing tools Basic Techniques Brush size and shape Brush Dynamics
Opacity and Strength, Flow and Exposure Brush Modes

Filling and Stroking: Filling Selections with Color or Patterns The Paint bucket tool, The Fill Command
Backspace and Delete Key Techniques, Applying gradient fills Applying Strokes and Arrowheads

UNIT 2	Retouching and Restoring: Using the Tools of the Trade, Cloning and Healing, Retouching Photographs, Restoring an old photograph, Stepping Back through Time
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Selections and Paths: Understanding How Selections work, Geometric Selection Outlines, Free-form
Outlines, Magnetic Selections, The Magic(al) Wand, The Quick Selection Tool, Ways to change Selection
Outlines, Moving and duplicating Selections, Drawing and Editing Paths, Importing and Exporting paths

Masks and Extractions: Painting and Editing Inside Selections, Working in Quick Mask mode, Generating
Masks Automatically, Creating an Independent Mask Channel

Corrective Filtering: Looking at Filters, understanding filters, Fading a filter, Heightening focus and
contrast, Blurring an Image, Understanding Noise factors

Distortions and Effects: Creating Bizarre effects, Using the filter gallery, Playing with Pixelate Filters
Working with Edge-Enhancement Filters, Distortion Filters, Adding clouds and Spotlights

Custom Effects: Creating Home grown effects with the custom filter, Displacing Pixels in an Image
Using Displacement Maps

UNIT 3 Working with Layers: Sending a selection to a Layer, Layer Basics, Selecting the contents of Layers, Moving, Linking and Aligning Layers, Creating and Using smart objects, Applying transformations, Masking and Layers, Working with Layer comps, 3D Image Editing

The Wonders of Blend Modes: Opacity and Fill, Blend Modes, Advanced Blending Options, Dropping Out and forcing through, Whole Image Calculations

Shapes and Styles: Drawing Polygons, Lines and Custom shapes, Beauty on the Inside, Beauty on the Outside, Modifying and Saving Effects

Fully Editable Text: The Five Flavors of Text, Text as Art, Using the Type tool, Creating and Manipulating text in a frame, Applying Character formatting, Applying paragraph formatting, Finding and replacing text Fitting type on a path, Wrapping text, Editing text as shapes

UNIT 4 Essential Color Management: A typical color-matching scenario, Color Conversion Central Custom CMYK Setup Synchronizing Bridge Color Settings

Mapping and Adjusting colors: Color effects and adjustments, Colors in need of adjustments, Quick and automatic color effects, Adjusting Hues and Colorizing Images, Making Custom Brightness Adjustments Adjustment Layers, The Advantages of Layer Based Corrections, Correcting Camera Raw images

Animating and Working with video: Working with Video, Image Sequences, and Animation, Creating Animations, Creating Animated GIF images, Rotoscoping, Film Editing, Recording & Dubbing

Printing and Publishing: Understanding Printing Terminology, Printing Composites, Creating color separations, Printing Duotones, Optimizing Images for Web Publication, Choosing the Right Web Graphic format, Optimizing Images into GIF and PNG-8 formats, JPEG and PNG-24 formats, Resizing Images Slicing and Dicing an Image, Publishing from the Bridge

Practical Assignments

1. Use Marquee and lasso tools to select out full body from background
2. Use Magic wand to quick select objects from backgrounds
3. Use selection tools with move tool to create collage
4. Use brush tool and stamp tools to create pattern
5. Create new textures and modify existing textures
6. Selection using quick mask and extract tools
7. Enhance quality of images by applying image adjustment tools to change brightness, contrast, levels and correction enhancements.
8. Repair image using Clone stamp tool and pattern stamp tool, healing and patch tool
9. Retouch image using blur, sharpen, smudge, dodge, color replacement etc

10. Apply cloud and noise filters to create grass texture
11. Use cloud and noise filters along with brush to create cosmos and nebulae like space
12. Create greeting cards, visiting cards, posters, paper ad in Photoshop
13. Design logo with use of text tool and layer styles
14. Scan, Resize crop images

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Total Marks 80: Practical: 60(Theory) +20 (Internal Assessment-Test)

SCHEME OF THEORY EXAMINATION IN ANIMATION & VISUAL EFFECTS

Time: 01Hrs

Max. marks: 20

1. Answer any TEN of the following : 2 x 10 = 20
(12 questions to be given and 10 to be answered)
- a)
 - b)
 - c)
 - d)
 - e)
 - f)
 - g)
 - h)
 - i)
 - j)
 - k)
 - l)
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Practical question paper pattern

Time: 02 hrs.

Max. Marks: 60

1. Identify / Demonstrate A, B, C & D 25x02=50
2. RECORD -10
