# FACULTY OF VOCATIONAL STUDIES

# **SYLLABUS FOR**

# Master of Vocation (Animation and VFX) (Semester I-IV)

(Under Credit Based Continuous Evaluation Grading System)

**Session: 2022-23** 



**The Heritage Institution** 

KANYA MAHA VIDYALAYA JALANDHAR (Autonomous)

#### MASTER OF VOCATION (M.VOC.) PROGRAMME

**PROGRAMME OUTCOMES:** Students opting for Master of Vocation Programmes on course completion/exit points will be able to:

PO1: get better job opportunities and can make informed choices due to enhanced employability and skill-set owing to Industrial exposure through internships/ training in the specific work area of choice.

PO2: understand, develop and observe work practices and ethics required to sustain and grow professionally in the industry concerned.

PO3: adapt to the work environment and are able to work on time-bound assignments/projects individually or within a team, for a company or as a freelancer.

PO4: apply knowledge acquired during the course to update w.r.t changing Industrial requirements and stay relevant to the job-at-hand.

#### **Programme Specific Outcomes**

Students opting for Master of Vocation (Animation) Programme on course completion/ exit points will be able to:

PSO1.Understand the animated or live film making process different stages i.e. pre-production, Production and Post Production.

PSO2. Will be able to Implement the use of storyboarding, Screenplay, Foundation Art, in essential preproduction process to develop a film concept.

PSO3. Demonstrate &Implement the knowledge of principles of animation and of graphic design in 2d animation and in various aspects of 3D animation namely 3d modelling, texturing & Lighting, rigging & animation during the production phase.

PSO4. Will be able to implement the use of audio editing, video editing, and VFX in final Post – production.

PSO5.Capable of producing research and development-oriented portfolio of artwork that integrates the principles, techniques and skills acquired in the coursework (primarily Graphic design, 3d modelling, texturing & Lighting, rigging & animation and video editing).

# Scheme and Curriculum of Examination of Two-year Degree Programme Master of Vocation (Animation and VFX)

# Semester I Session 2022-23

| Course code   | Course Title                         | Course<br>Type | Credits |       | Marks |            |     |    | Examinatio<br>n Time in   |
|---------------|--------------------------------------|----------------|---------|-------|-------|------------|-----|----|---------------------------|
|               |                                      |                | L-T-P   | Total | Total | <b>E</b> : | xt. |    | Hours                     |
|               |                                      |                |         |       |       | L          | P   | CA |                           |
| MVAL-<br>1111 | Fundamentals of Design and Animation | С              | 4-0-0   | 4     | 50    | 40         | -   | 10 | 3(Theory)                 |
| MVAM-<br>1112 | Foundation Course on Animation       | С              | 2-0-2   | 4     | 50    | 25         | 15  | 10 | 3(Theory)<br>3(Practical) |
| MVAM-<br>1113 | Basics of<br>Photography             | С              | 2-0-2   | 4     | 50    | 25         | 15  | 10 | 3(Theory)<br>3(Practical) |
| MVAP-<br>1114 | Introduction to 2D Animation         | S              | 0-0-4   | 4     | 100   | -          | 80  | 20 | 3(Practical)              |
| MVAP-<br>1115 | Introduction to 3D Animation         | S              | 0-0-4   | 4     | 100   | -          | 80  | 20 | 3(Practical)              |
| MVAP-<br>1116 | Graphic Designing  – Advanced        | S              | 0-0-4   | 4     | 100   | -          | 80  | 20 | 3(Practical)              |
| MVAD-<br>1117 | Minor Project – I                    | S              | 0-0-6   | 6     | 100   | -          | 80  | 20 | 3(Practical)              |
|               | Total                                |                |         | 30    | 550   |            |     |    |                           |

 $\begin{array}{ll} Note: \ C-Compulsory \\ S-Skill\ Enhancement \end{array}$ 

# Scheme and Curriculum of Examination of Two-year Degree Programme Master of Vocation (Animation and VFX)

# Semester II Session 2022-23

| Course        | Course Title                                  | Course | Cred  | Credits |       |    | Ma  | arks | Examination      |
|---------------|---|--------|-------|---------|-------|----|-----|------|------------------|
| code          |   | Type   | L-T-P | Total   | Total | Ех | ĸt. |      | Time in<br>Hours |
|               |   |        |       |         |       | L  | P   | CA   | Hours            |
| MVAL-<br>2111 | Project Management in Animation               | C      | 4-0-0 | 4       | 50    | 40 | -   | 10   | 3                |
| MVAM-<br>2112 | Workplace Health and Safety                   | С      | 2-0-2 | 4       | 50    | 25 | 15  | 10   | 3+3              |
| MVAP-<br>2113 | Video Editing                                 | С      | 0-0-4 | 4       | 50    | -  | 40  | 10   | 3                |
| MVAP-<br>2114 | Storyboarding,<br>Animatics and<br>Screenplay | S      | 0-0-4 | 4       | 100   | -  | 80  | 20   | 3                |
| MVAP-<br>2115 | 2D Digital Animation –Advanced                | S      | 0-0-4 | 4       | 100   | -  | 80  | 20   | 3                |
| MVAP-<br>2116 | 3D Modeling in<br>Maya – Advanced             | S      | 0-0-4 | 4       | 100   | -  | 80  | 20   | 3                |
| MVAD-<br>2117 | Minor Project – II                            | S      | 0-0-6 | 6       | 100   | -  | 80  | 20   | 3                |
|               | Total   |        |       | 30      | 550   |    |     |      |                  |

 $\begin{array}{ll} Note: \ C-Compulsory \\ S-Skill\ Enhancement \end{array}$ 

# Scheme and Curriculum of Examination of Two-year Degree Programme Master of Vocation (Animation and VFX) Semester III

# Session 2022-23

| Course code   | Course Title                            | Course<br>Type | Credits |       | Marks |    |      |        | Examinati<br>on Time in |
|---------------|---|----------------|---------|-------|-------|----|------|--------|-------------------------|
|               |   |                | L-T-P   | Total | Total | I  | Ext. |        | Hours                   |
|               |   |                |         |       |       | L  | P    | C<br>A |                         |
| MVAM-<br>3111 | Experimenting and Research in Animation | С              | 3-0-1   | 4     | 50    | 25 | 15   | 10     | 3+3                     |
| MVAM-<br>3112 | Lighting, Texturing and Rendering       | С              | 3-0-1   | 4     | 50    | 25 | 15   | 10     | 3+3                     |
| MVAM-<br>3113 | Acting for Animation                    | С              | 3-0-1   | 4     | 50    | 25 | 15   | 10     | 3+3                     |
| MVAP-<br>3114 | Motion Graphics                         | S              | 0-0-4   | 4     | 100   | -  | 80   | 20     | 3                       |
| MVAP-<br>3115 | 3D Character Animation using Maya       | S              | 0-0-4   | 4     | 100   | -  | 80   | 20     | 3                       |
| MVAP-<br>3116 | Visual Effects<br>(VFX)                 | S              | 0-0-4   | 4     | 100   | -  | 80   | 20     | 3                       |
| MVAD-<br>3117 | Minor Project - III                     | S              | 0-0-6   | 6     | 100   | -  | 80   | 20     | 3                       |
|               | Total                                   |                |         | 30    | 550   |    |      |        |                         |

 $\begin{aligned} & \text{Note:} & \ C-Compulsory} \\ & S-Skill \ Enhancement \end{aligned}$ 

# Scheme and Curriculum of Examination of Two-year Degree Programme Master of Vocation (Animation and VFX) Semester IV

#### Semester IV Session 2022-23

| Course code   | Course Title                   | Course<br>Type | Credits |       | Marks |    |     |    | Examinatio<br>n Time in |
|---------------|--------------------------------|----------------|---------|-------|-------|----|-----|----|-------------------------|
|               |                                |                | L-T-P   | Total | Total | E  | xt. |    | Hours                   |
|               |                                |                |         |       |       | L  | P   | CA |                         |
| MVAM-<br>4111 | Career Management              | С              | 4-0-2   | 6     | 75    | 30 | 30  | 15 | 3+3                     |
| MVAM-<br>4112 | Digital Art<br>Copyrights      | С              | 4-0-2   | 6     | 75    | 30 | 30  | 15 | 3+3                     |
| MVAI-<br>4113 | Industrial Training and Report | S              | 0-0-18  | 18    | 250   | -  | 250 | -  | 3                       |
|               |                                |                |         | 30    | 400   |    |     |    |                         |

Note: C – Compulsory

S – Skill Enhancement

#### SEMESTER I COURSE CODE: MVAL-1111

#### **Fundamentals of Design and Animation**

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: Develop the fundamental understanding of CGI

CO2: Understand and apply various elements of design

CO3: Get an overview of animation techniques beginning from early Disney animation processes

CO4: Understand and implement the principles of animation in their artwork/animation.

#### **SEMESTER I**

#### **COURSE CODE: MVAL-1111**

#### **Fundamentals of Design and Animation**

| L - T - P     | Max. Marks: 50 |
|---------------|----------------|
| 4-0-0         | Theory: 40     |
| Time: 3 Hours | CA: 10         |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit - I

Computer Graphics & its applications, Types of Graphics, Different Formats of Video & Images Its Use, Aspect ratio, Resolution (PPI, DPI), Pixel, Color Wheel

#### Unit - II

Visual Perception and Design - How do we SEE? [Seeing and observing]

Visual elements - Line and shape, Form, value, texture, color

Principles of Design.

Color and composition

#### **Unit - III**

History of Animation

Introduction to Animation movie process.

Different Types of Animation:

Traditional Animation - Cell Animation or hand drawn Animation

Stop Motion Animation – Puppet Animation, Clay Animation, Cut-out Animation, Silhouette Animation, Object Animation etc.

Computer Animation – 2D Animation, 3D Animation

#### **Unit - IV**

12 principles of animation (The basic rules of animation including Squash and stretch, Anticipation, Staging, Straight Ahead Action and Pose to Pose, Follow Through and Overlapping Action, Slow in and Slow Out, Arc, Secondary Action, Timing, Exaggeration, Solid drawing, Appeal.)

#### **Suggested Readings:**

Colin Ware, "Visual Thinking: for Design", Morgan Kaufmann

Williams E. Richards, "The Animator's Survival Kit", Faber 3rd Edition

Stephen Cavalier, "The World History of Animation", Univ of California Pr

# SEMESTER I COURSE CODE: MVAM-1112

#### **Foundation Course on Animation**

The objective of this course is to develop Visual and creative aspect of an Artist and teach required skills for an artist like proportion, perspective, anatomy study, light & shade, different sketching styles, different art mediums etc.

After passing this course the students will be able to:

CO1: Express their ideas both verbally and through drawings

CO2: Understand the use of proportion, volume, perspective, sketching from memory and 7 visual elements of art.

CO3: Apply light and shade and body proportion (anatomy) in drawings.

CO4: Capable to discuss the role of observation & Importance of composition with the professionals in the field.

CO5: Will able to design cartoon character, or a composition.

#### **SEMESTER I**

#### **COURSE CODE: MVAM-1112**

#### **Foundation Course on Animation**

| L - T - P     | Max. Marks: 50          |
|---------------|-------------------------|
| 2-0-2         | Theory:25 Practical: 15 |
| Time: 3 Hours | CA: 10                  |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section

#### Unit I

#### Introduction with the tools for drawing

Drawing pencils: - (HB, B, 2B, 4B, 6B, 8B, 10B, 12B), Charcoal Pencil, Clutch Pencil.

Sheets: - cartridge, Hand Made, Ivory, Art Card, duplex, News Print, Mount board sheet etc.

Colors: - Poster color, Water Color, Pastel color, Pencil Color, waterproof ink.

#### Unit II

#### **Object Drawing, Light & Shade:**

Introduction to object drawing.

Introduction of light and shadow on objects and an assessment and representation of the impact of light on simple forms and objects. (Still Life Study)

#### **Unit III**

#### **Perspective Drawing:**

Perspective Drawing, one point, two-point & Three Point perspective. Perspective as applied to objects, furniture, interior and exteriors of the buildings.

#### **Nature Study:**

Drawing from Nature, Location drawing and learning to represent trees, plants, bushes, shrubs, insects, birds, and animals with attention to, proportion.

#### **Unit IV**

#### **Human Drawing:**

Introduction to human figure drawing —Drawings from Mannequin, quick Sketching of human figure Study of Ideal proportion of male and female figure with different ages, Focus on Head, Hand and Feet. Study of animal and birds with simple proportion.

#### Practical exercises to be implemented:

- Outdoor and indoor study human in action
- Study light and shade using still life,
- Different poses of human, animal and birds
- Perspective Study (One Point, Two Point & Three Point)
- Create Character Design with personality

#### **Suggested Readings:**

Bancroft Tom, "Creating Character with Personality", Watson-Guptill Victor Perard, "Anatomy and Drawing", Dover Publications

Hart Christopher, "Modern Cartooning: Essential Techniques for Drawing Today's Popular Cartoons", Watson-Guptill

# SEMESTER I COURSE CODE: MVAM-1113 Basics of Photography

#### **Course Outcomes:**

CO1: After passing this course the student will be able to:

CO2: understand and differentiate different types of digital photography

CO3: utilize various camera settings to the best as per requirement of the shot

CO4: understand various angles and shot depending on their relevance

#### **SEMESTER I**

#### **COURSE CODE: MVAM-1113**

#### **Basics of Photography**

| L - T - P     | Max. Marks: 50          |
|---------------|-------------------------|
| 2 - 0 - 2     | Theory:25 Practical: 15 |
| Time: 3 Hours | CA: 10                  |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit - I

Introduction to photography, Meaning of Photography and its applications Types of Photography: Product Photography, Nature Photography, Event Photography, Travel Photography, Sport photography Different types of Color profiles (Natural, Portrait, Landscape etc.)

#### Unit - II

Camera Lens and its Types,

Element of Exposure (Aperture, Shutter Speed, Depth of Field, ISO)

Composition: Rule of Thirds, Head room, Frame within a frame, Symmetry

Photography golden hours

#### **Unit - III**

Image editing: Image editing through image editing software like Adobe Photoshop – Adjustment of Brightness, Contrast, Tonal and Colour Values – Experimenting with Level and Curve.

Digital Retouching & Image Enhancement

Image size, Resolution, Selection tools. Retouching tools, Layers & Incorporation of text into picture.

#### **Unit - IV**

Photo Manipulation: Applying Different effects and filters

Three Point Lighting

#### **Note for the Practical Examiner:**

- a) Practical Exam is based on the syllabus covered in the subject.
- b) The question paper will be set on the spot by the examiner.

#### **Suggested Readings:**

How to Create Stunning Digital Photography, "How to Create Stunning Digital Photography", Mason Press

Al Judge, "Mastering Aperture, Shutter Speed, ISO and Exposure", Subtle Visions Media Bryan Peterson, "Understanding Exposure", Amphoto Books

# SEMESTER I COURSE CODE: MVAP-1114 Introduction to 2D Animation

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: understand the interface, basic tools, navigation and drawing basic shapes in Adobe Flash

CO2: work on a 2D platform using basic techniques.

CO3: understand the production pipeline of 2d better by hands-on and practice

CO4: apply different animation techniques/ animation principles learned so far in the course.

### SEMESTER I COURSE CODE: MVAP-1114

#### **Introduction to 2D Animation**

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-4         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

Practical Exercises to be implemented:

- 1. Background Design
- 2. 2d Character Design
- 3. A Simple Scene of a Sunrise (with background and the environment)
- 4. A moving car scene on a road (with background)
- 5. A text animation using Mask
- 6. Animating a butterfly moving along a guide.
- 7. Bouncing Ball in place
- 8. Bouncing ball across the scene
- 9. Flag Animation
- 10. Pendulum Animation

#### Syllabus to be covered for the practical:

Introduction to Adobe Animate, Basics of Animation, Workspace overview, Using the Stage and Tools Panel, understanding timeline tools and their usage, Property panel- Library panel, colour panel, Understanding layers, Methods of Animation.

Technical Animation creation: Drawing in Animate- choosing colours, choosing line style, designing and alignment of elements, drawing panels - Time-line animation, Frame-by -frame Animation, Tweening, using symbols, adding sounds. Working with projects - Importing artwork.

#### **Suggested Readings:**

Adobe Creative Team, "Adobe Flash Professional CS6 Classroom in a Book", Adobe Georgenes Chris, "How to Cheat in Adobe Flash CC: The Art of Design and Animation", Focal Press

# SEMESTER I COURSE CODE: MVAP-1115 Introduction to 3D Animation

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: understand the interface, basic tools and navigation

CO2: work in 3D environment

CO3: use the timeline & basic animation tools

#### **SEMESTER I**

### **COURSE CODE: MVAP-1115**

#### **Introduction to 3D Animation**

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-4         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### Practical exercises to be implemented:

- 1. Model a ceiling fan
- 2. Animating a ceiling fan
- 3. Animating a door opening
- 4. Model a toy car
- 5. A moving toy car with wheel rotation
- 6. A ball rolling down from a flat surface
- 7. A ball hits a brick making it fall
- 8. Bouncing Ball in place
- 9. Bouncing ball across the scene
- 10. A Brick falling from a shelf to the ground

#### Syllabus to be covered for the practical:

Overview of 3D Production Pipeline, understanding a 3D environment.

Creating a Project in Maya, about Project Settings

Saving Files and File Types: about .ma and. mb file types.

Understanding and exploring Maya Interface, creating basic primitive objects, Using Basic Selection &

Transformation tools: Select(Q), Move (W), Rotate(E), Scale(R)

Viewports, Orthographic and Perspective Views.

Timeline: Framerate, Keyframes, Channel Box, Playblast, Working with Graph Editor.

#### **Suggested Readings:**

Darakhshani Dariush, "Introduction to Autodesk Maya 2015". Autodesk

Palamar Todd, "Mastering Autodesk Maya 2016". Wiley

# SEMESTER I COURSE CODE: MVAP-1116 Graphic Designing- Advanced

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: Apply their understanding of design elements and its principles on practical exercises

CO2: Apply various types of image manipulation techniques

CO3: Work on real-time projects like designing of banners, brochures, matte paintings, movie posters

applying fundamentals of graphic designing

#### **SEMESTER I**

### COURSE CODE: MVAP-1116 Graphic Designing- Advanced

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-4         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### Practical exercises to be implemented: Photoshop

Calendar for an Animation Studio/Office.

Magazine/ Newspaper Advertisement ad full page and half page and quarter page

Poster Design: Poster for an Animation Movie/ Web Banners

Image Manipulation
Photo Retouching

#### Practical exercises to be implemented: Illustrator

Create Objects (Mouse / Fruits/ Glass / bowl etc) Logo design (eg: McDonalds/ Master Card/ Nike etc) Print Design: Visiting Card, Letter Head

Trace and Stylize a City Landscape

Syllabus to be covered for the practical:

#### Unit I

What is Graphic Designing? What is the role of Graphic Designing?

**Principles of Design:** Understanding the most essential aspect of design, Unity, to achieve through different principles like, Balance, alignment, Emphasis, Proportion. Movement, Repetition, Contrast. Introduction to Photoshop & its Tools

Bitmap and Vector Images and the difference between them, Image Resolution and Size, Understanding different type of Modes like RGB, CMYK etc.

Understanding Adobe Photoshop Interface, Creating, Saving and Opening documents, Using Workspace and Toolbars, Utilizing Grids and Guides, Using basic navigation tools. Adding Annotations and Setting up preferences.

Basic Image Manipulation: Introduction to Camera raw. Basic Image Editing, Using Marquee and selection Tools, Shapes, Using Pen tool, Using Image editing options like Hue Saturation, Levels, Curves, etc. Tools shortcuts, Brush Tool, Using Color Picker, Background Eraser Tool, and using Creating and saving Brush preset and Pattern. Understanding layers and its properties.

#### Unit II

Effects and Tools: Using filters, Liquefy, vanishing point, Clipping Mask, Clone tool, Spot healing tool, Patch tool, using Crop and gradient tool, content aware tool, refine edges. Layer Styles, Blending modes,

Tools & Palettes: Text Basics, Understanding Type parameters, Editing text, type selection, character palette and paragraph palette, Type on a path. Text Wrap and adding effects to text, Using transformation properties.

#### Unit III

Create New file, Selection Tool [Intro] Selection Tool[working], Zoom VS increase size, zoom tool, Hand Tool, Resize objects, Scale Up/Down, Move, Rotate, Copy, Shift usage in creating objects. Direct Selection Path Anchor point Smart Guides Objects as Group Anchor Points Selection, Add joints, Pen Tool- Drawing, Smooth Curve Sharp Corner, Drawing Objects using Pen Tool, Symmetrical Shapes Ruler, Smart Guide Unlock/Lock Guides Reflect an Object Join lines as an Object Hide Guides, Fill/Stroke, Anchor Point Tool, Curvature Tool. Drag/Embed an image Layers Format Average/Join Shortcut key Eye Dropper Tool Shape Builder Tool Directed to selection tool

#### **Unit IV**

Drag/Embed an image, Layers Format, Average/Join, Shortcut keys, Eye Dropper Tool, Shape Builder Tool, Directed to selection tool, Gradients, Paint brushes/Stroke, Blob brushes/Fill, Brushes panel, Brush size increase/decrease, Pencil tool, Smooth tool, Path eraser, Shaper tool, Join tool, Eraser tool, Scissor tool, Knife tool, Two options to use rotate tool, Rotate objects on a specific angle, Scale Tool, Shear Tool, Reshape Tool and Free Transform Tool, Masking, kinds of Mask, Draw inside, Clipping mask, clipping mask on image, Embed image, Opacity Mask, Adding Mesh Points, Spreading and Contracting, Mesh, Managing Sharpe lines, at the end of color ,blend/gradient/shade, Outline Mode, Switching between Tools, Rectangle Tool usage, Rotate Tool usage, Rounded Rectangle Tool usage, Offset Path usage, Simple Gradient usage, Scale Tool usage.

#### Common applications of Graphic design

Identity (logos and branding), Publications (magazines, newspapers and books), Print advertisements, posters, Website graphics and elements, signs and product packaging,

#### **Suggested Readings:**

Alex W. White, "The Elements of Graphic Design", Allworth Press

Adrian Shaughnessy, "How to Be a Graphic Designer without Losing Your Soul", Princeton Architectural Press

David Sherwin, "Creative Workshop: 80 Challenges to Sharpen Your Design Skills", HOW Books Ellen Lupton, "Thinking with Type", Princeton Architectural Press Danae Lisa, "Adobe Photoshop CC Bible", Wiley

Faulkner Andrew," Adobe Photoshop CC Classroom in a Book", Pearson Education Adobe Creative Team, Adobe Illustrator CC Classroom in a Book Brian wood ,Adobe Illustrator CC Classroom in a Book, Pearson Education https://www.youtube.com/watch?v=ZK86XQ1iFVs

# SEMESTER I COURSE CODE: MVAD-1117 Minor Project – I

#### **Course Outcomes:**

The students through their project will be able to:

CO1: Apply the various tools and techniques learned in the course.

CO2: Understand the life cycle of the project and the various stages that leads to the final outcome.

CO3: Will learn to interact and communicate and work in a team.

# SEMESTER I COURSE CODE: MVAD-1117 Minor Project – I

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-6         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

- 1. The students will work on a Graphic Designing/ a basic Animation project in their own identified area of interest.
- 2. The students project will be evaluated on the following Criteria:
  - a) Technical Quality
  - b) Creative Quality
  - c) Appeal to the Target Audience
  - d) Success in conveying message right.
- 3. The marks will be given on the basis of the submission of the project and viva-voce.

# SEMESTER II COURSE CODE: MVAL-2111

# **Project Management in Animation**

#### **Course Outcomes:**

On the successful completion of the course students will be able to:

CO1: the various stages of project starting from planning, through production and finally to post production.

CO2: learn managing a project observing timeframe/deadlines of various deliverables.

CO3: know how various project management tools help to manage projects effectively.

### SEMESTER II COURSE CODE: MVAL-2111

#### **Project Management in Animation**

| L - T - P     | Max. Marks: 50 |
|---------------|----------------|
| 4 - 0 - 0     | Theory: 40     |
| Time: 3 Hours | CA: 10         |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit – I

Project Management in Animation: Overview and need, Prerequisites and deliverables. Introduction to Animation process: The production process from script to screen, popular forms of animation, delivery mechanisms, Designing the process

#### Unit – II

Scheduling: Understanding project requirements, breaking it down, planning for deadlines, resource management, budget allocation.

Task lists: Creating and using Task lists at various phases of an Animation project

#### Unit – III

Data management: Recording, Tracking, Transfer, tools, Asset management and Handling.

Communication: Modes

Monitoring projects: using Gantt Charts to monitor the project progress and milestones

Introduction to various Project Management tools

#### Unit – IV

Delivery Process: The Client Specifications, Delivery checklists, packaging, paperwork and delivery

of project

Opinions: Artists viewpoint, Client perspective, Client Relations, Cost Control, Training.

#### **Suggested Readings:**

Ranjit Singh, "The Art of Animation Production Management", Macmillan Publishers Catherine Winder, Zahra Dowlatabadi, "Producing Animation", Routledge; 2 Edition

# SEMESTER II COURSE CODE: MVAM-2112 Workplace Health and Safety

#### **Course Outcomes:**

On the successful completion of the course students will be able to:

CO1: understand various workplace-related hazards, emergency situations

CO2: understand and observe safety guidelines

CO3: will learn to know the types, symptoms and ways to handle medical conditions

# **SEMESTER II**

# **COURSE CODE: MVAM-2112**

### **Workplace Health and Safety**

| L - T - P     | Max. Marks: 50           |
|---------------|--------------------------|
| 2 - 0 - 2     | Theory: 25 Practical: 15 |
| Time: 3 Hours | CA: 10                   |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit I

Importance of High Standards of Health and Safety at workplace Identification of health and Safety hazards

Identification of people responsible for health and safety and mechanisms to reach out to them

#### **Unit II**

Ensuring the success of safety and health management system: monitoring, reporting various incidents and revision of plan.

Types of emergencies, Emergency plans, Evacuation and other emergency procedures in case of fire, flood, earthquake etc.

#### Unit III

Fire safety in the workplace, Different types of fire extinguishers, classification and usage Medical assistance in case of health, symptoms and first aid for different medical conditions like cardiac failure, choking, unconsciousness etc.

#### **Unit IV**

Safety guidelines of System/equipment and machines, various safety symbols: meaning and importance. Governmental norms and regulations regarding Health and Safety at workplace

#### **Practical Exercises:**

- 1. Identification of the different types of Fire extinguishers
- 2. A demonstration on using Fire extinguisher in case of any emergency.

#### **Suggested Readings:**

Schneid D. Thomas, "Workplace Safety and Health: Assessing Current Practices and Promoting Change in the Profession (Occupational Safety & Health Guide Series)", CRC Press; 1 Edition Gupta A.K, "Industrial Safety and Environment Paperback", Laxmi Publications; Second edition

# SEMESTER II COURSE CODE: MVAP-2113 Video Editing

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: Know about editing basics, tools and video production process

CO2: Get Knowledge of working with footages in an editing software.

CO3: Learn different types of editing techniques

CO4: Edit a short film or music videos.

# SEMESTER II

#### **COURSE CODE: MVAP-2113**

#### **Video Editing**

| L - T – P     | Max. Marks: 50 |
|---------------|----------------|
| 0-0-4         | Practical: 40  |
| Time: 3 Hours | CA: 10         |

#### **Exercises to be implemented (Practical)**

- 1. Slideshow of images
- 2. Synchronize text with audio
- 3. Create news ticker (lower third)
- 4. Mash up
- 5. Create a video includes shots from different angles
- 6. Create a one-minute short film

#### Syllabus to be covered:

#### Unit - I

**Introduction to Editing:** Introduction to video Editing. Develop an understanding of the digital video production process: pre-production, shooting, editing, and post-production. Understanding importance of editing in the flow of a narrative. Pace and Rhythm in editing. Linear and Non-Linear Film Editing. **Introduction to Editing Tool:** Premiere Pro Working with interface. Importing supported files and saving project. Understanding tools and palettes, timeline and project panel. Previewing footages. Managing footages. Use of timeline, source monitor, project monitor, project panel, sequence, Different types of tools effects & transitions in Premiere Pro.

#### Unit - II

#### **Working with footages**

Setting up project, removing frames, naming, finding and deleting footages, learning file size limitations, using markers, In-out points, scaling clips, creating black video, adding transitions. Changing and replacing transitions. Adding Key, Time remapping, video formats and resolutions. Editing mode, Timeline, changing Frame size, Aspect Ratio, Fields, Audio sample rate, File format, Codec, Export, Multi cam Editing, Color Correction and Grading

#### Unit - III

Understanding uses of different types CUTs (Matched action, after action, before action, foreground wipe, look off, Dialogue referent, reaction, thought referent, visual linkage, Dialogue overlap, Audio linkage, loud sound)

#### Unit - IV

**Different types of video editing techniques** (Crane shot, establishing shot, Frantic zoom, Steadicam long take, Mirror shot, zoom-out, point of view, Crane shot spin, Time lapse, Pan, Slow motion, Low angle shot, special effect (VFX), 180-degree rule

#### **Suggested Readings:**

1. Adobe "Adobe Premiere Pro CC Classroom in a Book", Pearson Education India

#### **SEMESTER II**

**COURSE CODE: MVAP-2114** 

#### Storyboarding, Animatics and Screenplay

#### **Course Outcomes:**

After passing this course the student will be able to:

CO1: know about importance of different styles of storyboard

CO2: Know about Story, script and storyboard and its importance in film.

CO3: Get knowledge of all elements of a film CO4: Write a screenplay.

# SEMESTER II

#### **COURSE CODE: MVAP-2114**

#### Storyboarding, Animatics and Screenplay

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-4         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### **Instructions for Paper Setter -**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit - I

#### **Introduction to Storyboarding**

Introduction to Storyboard, different styles of storyboard, difference between storyboard and animatic. Advantages of Storyboard in Animation and Anatomy of a Storyboard. Advantages of an Animatic

#### Unit - II

Introduction to various shots, Camera angles and used in Storyboard panels. Continuity and Timing, Building a sequence of shots. Use of Perspective, Light & Shadow in Storyboarding.

#### Unit – III

Camera movements: -Pan, Tilt, Dolly/Track, Zoom in Zoom out, Whip Pan

#### Unit – IV

Screenplay: Introduction, Script, Three Act Structure, Act One, Act Two, Act Three, Writing Synopsis (Treatment), Dialogue.

Basic guidelines for writing a screenplay

#### **Practical Exercises to be implemented:**

- Story creation
- Convert story to screenplay using three act structure
- Story-board creation or animatic creation

#### **Suggested Readings:**

Hart John "The Art of StoryBoard", Focal Press.

Simon A Mark "Storyboards: Motion in Art", Focal Press.

Field Syd "Screenplay: The Foundations of Screenwriting", RHUS; Revised ed. edition

Vinod Chopra Films "3 Idiots: The Original Screenplay", Om Books

# SEMESTER II COURSE CODE: MVAP-2115 2D Digital Animation - Advanced

#### **Course Outcomes:**

On the successful completion of the course students will be able to:

CO1: understand the usage of timeline, setting frame rate, keyframing the concepts fundamental to 2D

Animation process

CO2: design a character ready to animate

CO3: animate the character with life like expression and emotions

#### **SEMESTER II**

#### **COURSE CODE: MVAP-2115**

#### 2D Digital Animation - Advanced

| L - T – P     | Max. Marks: 100 |
|---------------|-----------------|
| 0-0-4         | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### Practical exercises to be implemented:

- 1. Demonstrate various expressions on a character/Cartoon
- 2. Create a Cartoon character using symbols as building blocks
- 3. Create a Character(realistic/cartoon) with personality
- 4. Create and Animate armatures
- 5. Animate a walk cycle
- 6. Create character using symbols
- 7. Lip syncing a dialogue

#### Syllabus to be covered for the practical:

#### **UNIT-I**

Introduction to Adobe Animate CC, Basics of Animation, Workspace overview, tools and their usage, color panel, understanding layers, Methods of Animation, Understanding the Timeline panel, Organizing layers in a timeline, Using the Properties panel, Using the Tools panel, Adding layer effects, Undoing steps in Animate, Previewing and exporting your movie, Modifying the content and Stage, Saving your movie.

#### UNIT – II

Technical Animation creation: Drawing in Animate CC - choosing colors, choosing line style, designing and alignment of elements, Frame-by -frame Animation, Tweening & using symbols, Working with projects - Importing artwork into Animate CC, Graphic symbols for lip-syncing dialogue

#### UNIT - III

Using the camera, animating shapes, Using classic tweens Creating a shape tween, Creating a looping animation, Previewing animations with onion skinning, Creating and using masks, Animating the mask and masked layers, Easing a shape tween.

#### UNIT - IV

Using sounds, Understanding video, Using Adobe Media Encoder CC, Understanding encoding options, Playing back of external video in your project, Exporting Final Animation with Audio/Video.

#### **Suggested Readings:**

Adobe Creative Team, "Adobe Animate CC Classroom in a Book Book", Russell S. Chun Beginning Adobe Animate CC: Learn to Efficiently Create and Deploy Animated and Interactive Content

# SEMESTER II COURSE CODE: MVAP-2116 3D Modeling in Maya- Advanced

#### **Course Outcomes:**

On the successful completion of the course students will be able to:

 $CO1: apply\ various\ 3D\ modelling\ techniques\ for\ Surface\ modelling,\ Nurbs\ modelling,\ polygon$ 

modeling

CO2: create a 3D model of an interior or exterior CO3: model a 3D character with blend shapes

#### **SEMESTER II**

#### **COURSE CODE: MVAP-2116**

#### 3D Modeling in Maya- Advanced

| L - T – P     | Max. Marks: 100 |
|---------------|-----------------|
| 0 - 0 - 4     | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### **Practical exercises to be implemented:**

- 1. A 3d character model with blend shapes
- 2. Any two-inorganic models
- 3. Interior or Exterior model

#### Syllabus to be covered for the practical:

#### Unit – I

#### **Surface Modeling:**

NURBS Primitives, Using Curves, CV Curve tool, EP Curve Tool, Bezier Curve Tool, Arc Tools, Attaching and Detaching Curves, Open/Close Curves, Insert Knot, Extending Curves, Rebuild Curves, Surface objects, Revolve, Loft, Planar, Extrude, Bi rail, Boundary, Bevel and Bevel Plus, Attaching and Detaching Surfaces, Sculpt Geometry Tool,

NURBS Modeling - NURBS Product Model.

#### Unit - II

#### **Polygon Modeling:**

Polygon Primitives, Combine, Separate and Extracting functions, Extrude, Bridge, Append Polygon Tool, Inserting Edge loops, merging vertices, Bevel function, Crease tool, Split Polygon Tool, Create Polygon tool.

#### **Unit - III**

Creating and understanding topology of inorganic models like Chair, Table, Shelf, PC etc., Creating Complex Objects like Gun, Vehicle etc. Resolving mesh, Manipulating triangular polygon to quad polygon. Smoothing Polygon surface, Combining and Merging Separate Geometries, Grouping and Ungrouping objects

#### **Unit - IV**

#### **Cartoon Character Modeling:**

Using Image Planes, setting up Images, Maya Display layers, Freezing Reference Images, Modeling Blocking Mesh using Maya Primitives, working with topology, Modeling Torso, Legs, Arm, Hand, Face, Creating Clothing and Props mesh, Using Sculpt Geometry tool, Mirroring Geometry, Creating Blend Shapes.

#### **Suggested Readings:**

Kelly Murdoch, "Autodesk Maya 2018 Basics Guide", SDC Publications Prof Sham Tickoo, "Autodesk Maya 2018: A Comprehensive Guide", Cadcim Technologies Chris Legaspi, "Anatomy for 3D Artists: The Essential Guide for CG Professionals", 3dtotal Publishing

Kelly Murdoch, "Autodesk Maya 2018 Basics Guide", SDC Publications

# SEMESTER II COURSE CODE: MVAD-2117

**Minor Project - II** 

#### **Course Outcomes:**

On the successful completion of the course students will be able to:

CO1: learn the application of principles of animation while working on a 2D project

CO2: have first-hand experience of the lifecycle of a project and the various stages of production

CO3: develop a short 2D animation clip (minimum 750 frames)

# SEMESTER II COURSE CODE: MVAD-2117

**Minor Project - II** 

| L - T – P     | Max. Marks: 100 |  |
|---------------|-----------------|--|
| 0-0-6         | Practical: 80   |  |
| Time: 3 Hours | CA: 20          |  |

- 1. The students will work on a 2D Animation project in their own identified area of interest.
- 2. The students project will be evaluated on the following Criteria:
  - a) Technical Quality
  - b) Creative Quality
  - c) Appeal to the Target Audience
  - d) Success in conveying message right.
- 3. In the minor project the students need to apply the various principles of animation and techniques learned in the first two semesters to develop a short 2D animation clip (minimum 750 frames) on any topic of choice.
- 4. The marks will be given on the basis of the submission of the project and viva-voce.

# SEMESTER III COURSE CODE: MVAM-3111

# **Experimenting and Research in Animation**

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: know the types and methodologies used in research CO2: be able to cite and reference using popular methods

CO3: have know-how of copyrights, IPRs and plagiarism and concerned provisions

.

### SEMESTER III COURSE CODE: MVAM-3111

#### **Experimenting and Research in Animation**

| L - T - P     | Max. Marks: 50           |
|---------------|--------------------------|
| 3-0-1         | Theory: 25 Practical: 15 |
| Time: 3 Hours | CA: 10                   |

#### **Instructions for Paper Setter –**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit - I

#### **Introduction to Research & documentation:**

**Research in animation:** Definition and importance, types of research, characteristics and the process

#### **Unit-II**

#### **Data Collection and Analysis:**

Collection of data and its methods, Sampling methods, Data analysis and processing, Types of research data: text, graphics, videos etc.

#### **Unit -III**

#### **Citation methods and Referencing systems:**

Referencing and Citation: Different methods like Harvard, Owl etc., Citation manuals Bibliography, footnotes

#### **Unit-IV**

Copyrights, IPR and patents, Different aspects of IPR, Acknowledgement for references, Plagiarism

#### **Suggested Readings:**

Research Methodology: A Step-by-Step Guide for Beginners (Third Edition), Author: Ranjit Kumar, Pub: Sage Publication Ltd.

Research Methodology: Methods and Techniques second edition, Author: C.R Kathori, Pub: New Age International Publishers.

# SEMESTER III COURSE CODE: MVAM-3112 Lighting, Texturing and Rendering

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: get to know about the different shading, properties and application.

CO2: be able to apply lighting in interior and exterior scenes.

CO3: be able to learn and apply 3D rendering process.

# SEMESTER III

# COURSE CODE: MVAM-3112

#### **Lighting, Texturing and Rendering**

| L - T – P     | Max. Marks: 50           |
|---------------|--------------------------|
| 3-0-1         | Theory: 25 Practical: 15 |
| Time: 3 Hours | CA: 10                   |

#### **Instructions for Paper Setter –**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit - I

#### **UV Mapping and Texturing**

Unfolding Mesh, Cleaning and Adjustment of UV Layout, Exporting UV Map with different file format, Introduction to Hyper shade, Maya Material Lambert, Phong, Blinn, Phong E, Anisotropic Material, Surface Shader, Use Background, understanding 2D textures- Cloth, Applying Ramps, Bitmap, Working with Photoshop for Texture Painting, Difference between Bump map and Normal Map.

#### Unit - II

#### Maya lighting:

Lighting, Color and Composition, different Maya lights Point Light, Spotlight, Directional Light, Area Light, Ambient Light and its uses in specific areas. Depth map shadows, Raaytraced shadows, creating soft shadows with spotlights, creating glass using refraction.

#### **Unit - III**

#### **Arnold Lights:**

Skydome lights, applying physical light shaders, applying image-based lighting, Photometric lights (IES).

#### **Unit - IV**

#### **Rendering:**

Render Engine Introduction- Maya Software, Maya Hardware, , Arnold Renderer Settings, CPU and GPU render setting, Image Based Lighting, Render Passes - Ambient Occlusion Pass, Creating Reflection, Depth, and Shadow Passes, Batch Rendering. Render Setup- Choosing a Filename, Image Format, Frame Range, Camera, Setting Resolution, Selecting a Render Engine, Render Quality & Sampling (AA, Diffuse, Specular, Transmission, SSS, Volume indirect) Render View Window- Saving/Loading an Image, Keeping/Removing Image, Interactive Photorealistic Rendering(IPR) Render,

#### **Practical Exercises:**

Texture a 3D Cartoon character Create a night scene using Maya and mental ray lights Render any 3D product using different Render engine

# **Suggested Readings:**

Todd Palamar, "Mastering Autodesk Maya 2016". Wiley Darakhshani Dariush, "Introduction to Autodesk Maya 2015". Autodesk

Session: 2022-23
SEMESTER III

# **COURSE CODE: MVAM-3113**

# **Acting for Animation**

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: to understand the various aesthetics of acting to animating characters

CO2: learn to observe human actions and expressions.

CO3: be able to draw parallels in human acting and animation to make it real and impactful.

# Session: 2022-23 SEMESTER III

# **COURSE CODE: MVAM-3113**

#### **Acting for Animation**

| L - T - P     | Max. Marks: 50           |
|---------------|--------------------------|
| 3-0-1         | Theory: 25 Practical: 15 |
| Time: 3 Hours | CA: 10                   |

#### **Instructions for Paper Setter –**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit I

Essential of Acting Concepts:

ACTING Understanding RASA (aesthetics), Basic Performance skills, physical preparation Voice, speech & music, timing

Why Observation is important for animation

#### Unit II

Exercises that focus on breathing, humming, pitch, volume and singing Improvisation & acting

Through improvisation, both silent and word-oriented, learning to see, hear, believe, react, observe and concentrate.

#### Unit III

Facial expressions & Lip synchronization:

How to use Character's body, voice and imagination?

How to be aware of Character's body, facial expressions and to concentrate on its rhythm, enter space and loosen their limbs

#### **Unit IV**

Acquiring acting skills through sessions focused on an understanding of the self.

Mimicking & Voice Modulation

Fundamentals of Cinematography – Camera Angles, Lighting & creating mood, Shots.

#### **Practical Submission: -**

Animation with dialogue & expressions (minimum 500 frames) Using Adobe Flash or Maya

### **Suggested Readings:**

Acting for Animators – Ed Hooks Publisher: Heinemann Drama; Revised edition The artist's complete guide to facial expressions – Gary Gaigin Publisher: Watson-Guptill

Session: 2022-23
SEMESTER III
COURSE CODE: MVAP-3114
Motion Graphics

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: learn the basics (composition, settings etc.) of motion graphics

CO2: be able to create compelling motion graphics using various effects

CO3: be able to use motion graphics depending upon the field of application

# Session: 2022-23

#### **SEMESTER III**

#### **COURSE CODE: MVAP-3114**

#### **Motion Graphics**

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0 - 0 - 4     | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### **Practical Exercises:**

Creating an Image Slide show Create any commercial Advertisement for social media. Cinematic Title Animation with sound Creating a text Animation with following the path Shatter effect.

#### Syllabus to be covered for practical:

#### Unit I

Introduction to After effects, frame rate, Composition and settings, layers, Key-framing and Transform, Workflow, Exporting and File Formats, Masks, Layer Modes, Basic Effects

#### **Unit II**

Understanding Animation basics in after effects, Types of keys, Introduction to graph editor, Layer Properties, 3D Layers, adjustment layer, shy layer &Null, Nesting, Pre-composing, Non-destructive Workflow

#### **Unit III**

Color Correction in After Effects, Manipulating Footage, Introduction to tracking (2D and 3D Tracking, Feature Tracking, Four Point Tracking), Text& Title effect, introduction to 3rd party plugins.

#### **Unit IV**

Rendering: Fundamentals of rendering and exporting, Using Render Queue. Exporting still images and sequences, Learning output formats.

#### **Suggested Readings:**

Adobe "Adobe After Effects CC Classroom in a Book", Pearson Education India Perkins Chad, "How to Cheat in After Effects", Focal Press

Session: 2022-23
SEMESTER III

# COURSE CODE: MVAP-3115

# **3D Character Animation using Maya**

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: learn to generate 3D Animation following various principles of animation

CO2: learn to animate characters realistically depicting expressions and emotions

CO3: be able to create and animate a dialogue scene.

# Session: 2022-23 SEMESTER III

# COURSE CODE: MVAP-3115

#### 3D Character Animation using Maya

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0 - 0 - 4     | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### **Practical Exercises:**

Bouncing ball Animation
Different posing character
Blocking Animation
Walk cycle
Run cycle
Facial Expression Animation
Lips synchronisation with audio

#### Syllabus to be covered for the practical:

#### Unit -I

Maya Timeline, frame rate, Manual key & Auto Key, Animation Graph editor, playblast, Principles of Animation in MAYA, Posing, Create a Walk cycle,

#### **Unit-II**

Creating an interaction between two characters, Creating and Animating grappling hook, Creating Anatomy of expression for facial Animation, Facial expressions' animation

#### **Unit-III**

Creating and Animating realistic eyes, Basics of Facial Expressions with different Emotions, Understanding the Gestures and Postures. Understanding the importance of acting in animation,

#### **Unit -IV**

Body Language, Pulling, pushing and lifting objects. Creating and Animating a dialogue scene, Incorporate music / audio assets to a character

#### **Suggested Readings:**

Williams E. Richards, "The Animator's Survival Kit", Faber 3rd edition.

Roy Kenny, "How to Cheat in Maya 2014: Tools and Techniques for Character

Animation", Focal Press

Rodriguez David, "Animation Methods", CreateSpace Independent Publishing Platform

Session: 2022-23
SEMESTER III
COURSE CODE: MVAP-3116
Visual Effects (VFX)

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: learn to use various compositing techniques, effects and tools to generate Visual effects

CO2: learn to apply dynamic simulation i.e. fire, dust, rain etc.

CO3: be able to demonstrate their work confidently with After Effects/3D Maya software

# Session: 2022-23

#### **SEMESTER III**

# **COURSE CODE: MVAP-3116 Visual Effects (VFX)**

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0 - 0 - 4     | Practical: 80   |
| Time: 3 Hours | CA: 20          |

#### **Practical Exercises:**

Green screen effect and composting

3D Text Animation

Day to Night Conversion

Rain scene

Creating a scene 2D & 3D Tracking

#### Syllabus to be covered for the practical:

#### Unit -I

Working with footages: Setting up project, removing frames, naming, finding and deleting footages, learning file size limitations. Changing and replacing transitions.

Compositing: Alpha Channel, Using Blending modes, Blur and Sharpen, Creating, saving and back up of projects, modes and switches. Mask and transparent layers. Pre-composing. Using color depth and HDR colors. Color correction and color adjustment. Using layer markers, composition. Using 3D layers and understanding co-ordinate system in Adobe After Effects. Light Layer, Null Layer and Adjustment Layer.

#### Unit -II

Effects and Tools: Text effects, Blur and Sharpen effects. Essentials of Chroma and keying. Concept of Garbage matte. Using hold-out matte. Using plug-in effects like CC Snow, CC Rain, CC Blur effects etc. Learning Tracking fundamentals, using trackers and stabilizing footages. Using four corner pins to track, using pen tool to draw custom shapes and masks. Text tool. Eraser, Puppet Pin and 3D camera

#### **Unit -III**

**3D for VFX:** Dynamics Simulation (fire, dust, smoke, blast, Natural Phenomena like rain, Lightning, Volcano etc.),

#### **Unit-IV**

Maya Particles: Different types of Emitters and their working, particle collision, colouring particles, animation using per particle attribute, functioning of instance with examples, goal weights, use of particle fields, creating pyro techniques, sparks, bullet trails, fire using particles & Composting.

#### **Suggested Readings:**

Lisa Fridsma, "Adobe After Effects CC Classroom in a Book", Adobe

Eran Dinur, The Filmmaker's Guide to Visual Effects: The Art and Techniques of VFX for Directors, Producers, Editors and Cinematographers

Session: 2022-23
SEMESTER III
COURSE CODE: MVAD-3117
Minor Project - III

#### **Course Outcomes:**

On successful completion of this course the student will be able to:

CO1: apply various tools and techniques studied during the course on a practical usage

CO2: will get experience of specific requirements and outcome of different stages of any 2D/3D project

CO3: get to know how to tailor the project as per the target audience and make it more realistic and relevant

Session: 2022-23

# SEMESTER III

# COURSE CODE: MVAD-3117 Minor Project - III

| L - T - P     | Max. Marks: 100 |
|---------------|-----------------|
| 0 - 0 - 6     | Practical: 80   |
| Time: 3 Hours | CA: 20          |

During Semester-III, the students need to submit an animation project prepared using techniques and tools taught during the course (Adobe Photoshop, Adobe Flash, Adobe Premiere, Autodesk Maya and Adobe After effects).

Following points should be taken care of while working on project:

- 1. Students can choose themselves the subject matter and scenes
- 2. Minimum of 1000 frames
- 3. Use at least two different software
- 4. Effective use of cameras, focus on viewers' attention
- 5. Project report showcasing the stages of the project

Session: 2022-23 **SEMESTER IV** 

### **COURSE CODE: MVAM-4111**

# **Career Management**

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: learn formal/informal ways of communication and presentation

CO2: learn to make creative use of skills like digital resume/ motion graphics to advantage

CO3: learn to use various platforms available to increase visibility and opportunities

# Session: 2022-23 SEMESTER IV

# COURSE CODE: MVAM-4111

#### **Career Management**

| L - T - P     | Max. Marks: 75          |
|---------------|-------------------------|
| 4-0-2         | Theory:30 Practical: 30 |
| Time: 3 Hours | CA: 15                  |

#### **Instructions for Paper Setter –**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit I

#### **Career opportunities in Animation:**

Exploring different opportunities in Animation, A list of local, national, and international studios Existing studios and Industries which require animation

**Formal Communication**: Etiquettes of Public speaking, Business meetings, Telephonic communication, Email etiquettes.

#### Unit II

**Informal Communication**: Introduction, expressing gratitude, expressing regret, Apologize, Resolving conflicts.

**Presentation Skills**: Preparing presentation, making presentation meaningful and engaging, making effective use of the visual aid, interacting with audiences, dealing with queries from the audiences.

#### Unit III

**Creative use of Animation**: Prepare a Digital resume, prepare a Motion graphic resume **Preparing for Interviews**: Key factors for being successful in an interview, body language, confidence, subject expertise

Awareness of various platform for enhancing skills and professional growth

Creating Account on websites like animation express, bloggers.com, freelance.com, upwork.com for project work

#### **Unit IV**

Lifecycle of the project to be developed as a freelancer

Creating and maintaining account on professional networks like LinkedIn for career growth opportunities

#### **Practical Submission: -**

Students must submit Digital Portfolio/Showreel as practical assignment.

### Master of Vocation (Animation and VFX) Session: 2022-23

#### **Suggested Readings:**

Chaturvedi PD, Chaturvedi Mukesh," Business Communication: Skills, Concepts, and Applications", Pearson Education India

Robin Ryan, "60 Seconds and You're Hired! Revised Edition", Penguin Books Joan van Emden, Lucinda Becker, "Presentation Skills for Students", Palgrave

David Barron, "Resume: The Definitive Guide on Writing a Professional Resume to Land You Your Dream Job", CreateSpace Independent Publishing Platform

Angela Rose (Author), "Linkedin in 30 Minutes (2nd Edition): How to Create a Rock-Solid Linkedin Profile and Build Connections That Matter", I30 Media Corporation; 2nd edition

Session: 2022-23
SEMESTER IV
COURSE CODE: MVAM-4112

# **Digital Art Copyrights**

#### **Course Outcomes:**

On completion of this course, the students will:

CO1: become aware of various copyright laws applicable to digital Art

CO2: get to know how to protect their own creations

Session: 2022-23

#### **SEMESTER IV**

# COURSE CODE: MVAM-4112 Digital Art Copyrights

| L - T - P     | Max. Marks: 75         |
|---------------|------------------------|
| 4 - 0 - 2     | Theory:30 Practical:30 |
| Time: 3 Hours | CA: 15                 |

#### **Instructions for Paper Setter –**

Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

#### Unit I

**Copyrights:** Introduction, Definition, rationale of copyright protection, classes of Copyrights protection available in India, Different types of work (artistic, music, Cinematography etc),

#### Unit II

**Authorship and Ownership:** Whose rights are protected by Copyright, who has rights on artistic, dramatic and musical work, sound recording, rights of adaptation, rights of communication to public, performers rights, broadcaster rights, moral rights

#### Unit III

**Registration of Copyright:** Guideline of copyright act, Procedure, Term of Copyright, Administration of Copyright law, Collective administration of copyrights

#### **Unit IV**

**Copyrights infringements:** Common types of copyright infringements, legal remedies

#### **Suggested Readings:**

A Handbook of Copyright law, Govt of India, MHRD, Dept of Secondary and Higher Education

# Master of Vocation (Animation and VFX) Session: 2022-23

# SEMESTER VI COURSE CODE: MVAI– 4113 INDUSTRIAL TRAINING WITH MAJOR PROJECT

#### **Course Outcomes:**

On successful completion of this course the student will be able to:

CO1: get exposure on how to work in a professional environment

CO2: understand the division of work and workflow followed to meet deadlines

CO3: apply tools learned during the course

Session: 2022-23

#### **SEMESTER VI**

### COURSE CODE: MVAI– 4113 INDUSTRIAL TRAINING WITH MAJOR PROJECT

| L - T - P     | Max. Marks: 250 |
|---------------|-----------------|
| 0-0-18        |                 |
| Time: 3 Hours |                 |

Following points should be taken care of while working on project:

- 1. The students have to attend industrial training for the duration of minimum of 3 months in any of the following fields:
  - a) Designing
  - b) Video Editing
  - c) VFX
  - d) 2D Animation
  - e) 3D Animation
- 2. The duration of the project should be minimum 1500 frames.
- 3. The project evaluation criteria primarily focus on:
  - a) Effective use of camera and various software tools
  - b) The project (i.e. animated movie/sequence) undertaken must convey the message successfully for which it is undertaken.
  - c) Project Report
  - d) Viva Voce
- 4. The project report must include:
  - a) Title and abstract overview of the work done during project.
  - b) Brief introduction to the company and specific area of project being carried out.
  - c) Requirements:
    - Hardware and environment needed for the project
    - Various Software/Tools used to make the project
  - d) Project plan: The subject matter/script/scenes as required for the project.
  - e) Implementation of the project: Script Writing, Design, Recording, Audio/Video Editing etc.
- 5. The project submission includes the following:
  - a) Training Certificate
  - b) Project Report
  - c) Work files and Final Render