



TILAK MAHARASHTRA VIDYAPEETH

Declared as Deemed to be University Under Section 3 of UGC Act 1956
Reaccredited by NAAC with 'B++' Grade
ISO 21001 : 2018 Certified



Department of Digital Arts
605-BSC Animation and VFX

Academic Year 2025-26

3rd YEAR
SEMESTER V

YEAR	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	Rotoscopy & Paint (PR)	
COURSE CODE	BSAV -24-501	
PAPER NO	I	
MARKING SCHEME	End-Semester (EXT): 40	Continuous Evaluation (INT): 60
CREDITS	Total: 4	
	Theory: 0	Practical :4
TEACHING HOURS	Theory: 0	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To evaluate from the history to the latest tools and techniques used in Rotoscopy
- To familiarize the different types of splines used in various Rotoscoping software's and fine-tuning them.
- To discover tracking and match moving and using it for creating masks.
- To learn Rotoscoping organic objects like human, animal, and working on details.
- To understand masking of cloth and working with secondary motion

COURSE OUTCOME:

The student will be able to

- Usage of Rotoscopy in various occasions in a composite.
- Implement masking for simplification of other process like keying and tracking.
- Composite organic and inorganic object on new BG with help of detailed Rotoscopy.
- Implement various tracking methods on compositing shots as per requirements.
- Implement Paint techniques for the composited shots

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	Unit 1 Rotoscopy: • History of Rotoscoping, Latest tools for Roto, Terminologies, Shortcuts to work faster Understanding the frame, shot length, planning the matte	15		Pr	12	10

	usage, multiple shapes, Repeating shapes, Keying animation, Motion paths					
2	Unit 2 Creating Shapes: Creating splines, Transitioning between shapes, working with pivot points, Key frame placement and types, working with Blur, Motion blur, checking the mattes, jitter	15		Pr	12	10
3	Unit 3 Tracking: Tracking and scale, tracking and rotation, multiple transforms, averaging tracks, corner pinning, stabilizing footage	10		Pr	12	10
4	Unit 4 Rotoscoping Object: Rotoscoping Human, Isolating extremities, Joints, Hands, Overlap, fixed shapes, faces and heads, hair, Rotoscoping movement, fast and slow movement, tracking to optimize roto, Clothing, Shape breakdown, consistent point placement, secondary motion.	12		Pr	12	10
5	Unit 5 Painting: Concepts and tools for painting, Cleaning plates, Wire and Rig Removal, Pixel restoration.	8		Pr	12	10
Total Hours		60		PR	60	40
Text Books		1.Rotoscoping –Techniques and tools for the aspiring artists By Benjamin Bratt				
Reference Books		1.Compositing Visual Effects–Essentials for the Aspiring Artist - Steve Wright				

Year	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	Advanced Compositing Techniques-(PR)	
COURSE CODE	BSAV-24-502	
PAPER NO	II	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory :	Practical :4
TEACHING HOURS	Theory:	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To familiarize the students with compositing CGI with Live action using various Compositing techniques.
- To describe various advanced compositing techniques like Camera Projection, tracking and Rotoscopy techniques.
- To construct CGI elements within the realm of the 3D workspace of the Compositing Package.
- To work on camera tracking skills

COURSE OUTCOME:

The student will be able to

- Recall the integrating of passes for compositing using Nuke
- Interpret various color manipulation techniques used for digital image generation
- Demonstrate advanced compositing techniques of the node based compositing software – NUKE
- Perform 3D manipulation techniques of working in the 3D work space of NUKE
- Create seamless integration of CGI and live action Plates using Camera Projection, tracking and Rotoscopy techniques.

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	Unit 1 Passes for Compositing • Pass Management, Bit Depth Allocation, Finding the Best Depth Channels, Color	10		Pr	12	10

	Channels for the Project					
2	Unit 2 LUT The LUT use and Specifications, Finding the Black's and White's, Node reusing to Maintain Color Correction, Use of Plugin's in 3D Channels	15		Pr	12	10
3	Unit 3 Advanced Compositing Chroma Keying, Tracking and Stabilizing, Composite Hair and Fur, Using Vector Blur For Quicker Results	10		Pr	12	10
4	Unit 4 Working in 3D 3D Compositing workflow, 3D match move, Environmental Mapping, Creating Reflections.	12		Pr	12	10
5	Unit 5 Camera Projection and Tracking 3D Camera Projection and Tracking, 3D Channels and Depth Creation using Relight and Rotoscopy Solutions.	13		Pr	12	10
Total Hours		60		PR	60	40
Text Books		1 Compositing Digital Images by T. Porter and T. Duff I Proceedings of SIGGRAPH '84, 18 (1984) I 2 The Art and Science of Digital Compositing by Ron Brinkmann 3 Wright's Compositing Visual Effects: Essentials for the Aspiring Artist [Paperback]2007) – Paperback (2007) by S.Wright				
Reference Books		1 The VES Handbook of Visual Effects by Okun J, Zwerman S. 2 Compositing Visual Effects – Essentials for aspiring artists by Steve Wright				

Year	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	Rigging and Skinning(PR)	
COURSE CODE	BSAV 24-503	
PAPER NO	III	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory: 0	Practical :4
TEACHING HOURS	Theory:	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- Apply intermediate-level rigging techniques using Autodesk Maya
- Develop and implement control rigs for 3D models
- Utilize skinning techniques to create realistic deformations on 3D models
- Create blend shapes and corrective blend shapes for advanced rigging
- Demonstrate knowledge of rigging pipeline and apply it to the production pipeline.

COURSE OUTCOME:

The student will be able to

- Construct joint systems and control rigs using Maya for 3D models
- Develop skinning techniques to create realistic deformations on 3D models
- Apply blend shape and corrective blend shape techniques to create complex rigging structures
- Create dynamic rigs and deformations using advanced joint techniques
- Develop and implement a rigging pipeline to the production pipeline.

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	Unit 1Joint System and Controls • Joint Hierarchy and Naming Convention • Joint Orientation and Placement • Creating and Editing Joint Chains • Creating Control Objects and Setting up Controllers	12		Pr	12	10

	• Constraints and Hierarchies • Expression and Scripting					
2	Unit 2 Skinning Techniques • Skin Weighting Basics • Paint Skin Weights Tools and Techniques • Advanced Skin Weighting • Deformers • Influence Objects • Cluster Deformers	12		Pr	12	10
3	Unit 3 Blend Shape and Corrective Blend Shape • Introduction to Blend Shapes • Creating Blend Shapes • Corrective Blend Shapes • Animating Blend Shapes • Blend Shape Management	12		Pr	12	10
4	Unit 4 Dynamic Rigging and Deformations • Advanced Joint Techniques • IK and FK Switching • Constraints and Limitations • Dynamic Rigs • Corrective Deformations	12		Pr	12	10
5	Unit 5 Rigging Pipeline • Rigging for Animation • Rigging Checklist • Trouble Shooting and Maintenance • Production pipeline • Auto Rigging for character	12		Pr	12	10
Total Hours		60		PR	60	40
Text Books		1. An Essential Introduction to Maya Character Rigging by Cheryl Briggs 2. Rig it Right! Maya Animation Rigging Concepts, 2nd edition 3. Introducing Autodesk Maya 2019 by Dariush Derakhshani 4. Maya Character Creation: Modeling and				

	Animation Controls by Chris Maraffi 5. Learning Autodesk Maya 2019: A comprehensive guide to 3D animation and modeling by Todd Palamar
Reference Books	1. Mastering Autodesk Maya 2019: An Autodesk Official Press by Todd Palamar 2. Autodesk Maya 2019: A Comprehensive Guide by Prof. Sham Tickoo 3. Maya Python for Games and Film: A Complete Reference for Maya Python and the Maya Python API by Adam Mechtley and Ryan Trowbridge

Year	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	Stereoscopic Techniques (PR)	
COURSE CODE	BSAV-24-504	
PAPER NO	IV	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory: 0	Practical :4
TEACHING HOURS	Theory: 0	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To Analyze the concept and methodologies of stereoscopy and depth perception
- To Discover the stereoscopy and depth as a storytelling tool
- To Learn the different 3D display technologies and their applications
- To Understand Stereo compositing workflow and tools used for it.
- To Discover the Stereo conversion process and techniques involved

COURSE OUTCOME:

The student will be able to

- Knowledge in the latest techniques involved in theatrical stereoscopic display.
- Implement stereo workflow in the existing shots
- Composite stereoscopy in 3D software and composite.
- Implement various methods of 3D stereo conversion over existing shots

COURSE DETAILS:

Unit		No of			Marks Weightage

No	Title of unit with detailed content	teaching-learning hours	Theory	Practical	INT (continuous evaluation)	EXT (end-sem)
1	Unit 1 Introduction to Stereo world Overview of Stereo, Basic terms of Stereography, 2D vs. 3D Film Aesthetics, How does it work ?, Lens Choice and Blocking, Composition and Staging, Depth of Field - Principles of binocular vision and history of stereoscopy, 2D and 3D depth cues - Binocular parallax, Intraocular distance, hyper/hypo-stereo. Accommodation/ convergence, comfort/limits, Side-by-side vs. superimposed formats, Optics, lenses, filters, polarisers. Single & dual camera systems. Base plates & beam splitters. Camera and image registration. Parallel vs. toed-in photography. Polarized and anaglyph projection, Front and rear projection. Mathematics & calculations. Excursion iCinemaScientia Visualization Lab Displays and eyewear. Time-multiplexed displays (Stereo Graphics, RealD, dolby/Infitec).	14		Pr	12	10
2	Unit 2 Stereoscopy fundamentals and depth perception Stereo Terminology, Introduction to single-camera stereoscopic photography. Limits, anomalies & defects (vertical parallax, ghosting). implied motion & change blindness, stereo blindness, viewer vs scene vs object motion, size constancy. Depth Perception, Virtual vs. Real world, Computing Parallax, Parallax budget.	12		Pr	12	10
3	Unit 3 Depth as storytelling tool Comfort Limits (rules are made to be	10		Pr	12	10

	broken), Gimmick vs. Immersion in Film History, "Scoring" depth like a Film's Music Score, 3D hints, Stereopsis, Range disparity, Window violation					
4	Unit 4 : 3D Display Technologies Introduction, Stages of Stereo 3D Presentation, 3D Display Interfaces, Active Shutter Glasses (SG), Features of SG Technology, Polarized Passive 3D Technology, Film-type Patterned Retarder (FPR), Features of FPR Technology, FPR Misconceptions Q&A, FPR vs. SG Battles, NVIDIA 3D Vision AMD HD3D, Blu-ray, 3D Support and Panel Technologies	12		Pr	12	10
5	Unit 5 :Stereo Compositing workflow Planning a project. 2D and 3D software packages. Repurposing 2D software for 3D. 3D software tools for production, Setup for Stereo Workflow, Loading the Stereo Footage, Working with Stereo Footage on the viewer, Splitting, editing and swapping the Left eye and the right eye, Color correction with the left / right eyes, Converting images to anaglyph, Tracking Stereo Live action Plates 3D Stereo workflow Creating 3D stereo Cameras, Editing Stereo Cameras, Custom Stereo Rigs and Multi-Camera Stereo Rigs. Linking Stereo Camera's to a set of Objects, Multi-pass Stereo Rendering, and Adding 3D Stereo Renders in to the live action Plates The Process of Stereo Conversion Process	12		Pr	12	10

	The Process of Stereo conversion Process, Stereoscopic 3D Pipeline, Stereo Rotoscopy, Stereo Paint Sequence Paint, Match-moving & Camera Tracking, Depth Grading, Stereo Case Studies					
Total Hours		60		Pr	60	40
Text Books		1. 3D Postproduction: Stereoscopic Workflows and Techniques - Rick Baumgartner 2. 2. Digital Stereoscopy: Scene to Screen 3D Production Workflows - Mr Benoit J Michel, Mrs Colette Michel, - Publisher: Create Space Independent Publishing Platform (March 10, 2013).				
Reference Books		1. 3-D Revolution: The History of Modern Stereoscopic Cinema - Ray Zone - Publisher: The 2. University Press of Kentucky; 1ST edition (July 6, 2012) 3. 3D movie making- Stereoscopic Digital Cinema from Script to Screen - Bernard Mendiburu				

Year	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	Advanced 3D Animation-(PR)	
COURSE CODE	BSAV-25-505	
PAPER NO	V	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory :	Practical :4
TEACHING HOURS	Theory:	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To Understand Animation story telling techniques.
- To Formulate Preproduction workflow for Animation pipeline.
- To analyze various acting methodologies for effective storytelling.
- To learn the tools to create 3d animation.
- To apply principles of animation for 3D workflow.

COURSE OUTCOME:

The student will be able to

- Knowledge of storytelling requirement for animation medium.
- Improve knowledge of acting & body mechanics for realistic animation.
- Evaluate strategy for animation workflow.
- Demonstrate 3D animation techniques for small and big screens.
- Create 3D animated walk cycles

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	• Walk cycles biped character • Biped Sad Walk cycle, Biped personality walk • Quadruped walk,	12		Pr	12	10
2	• Create PPT on- Acting • Story and Idea for small animation clip • Story board and animatics for animation clip thumbnail & Story board for short animation clip	12		Pr	12	10
3	• Creating reference for animation short clip • Thumbnail to animation planning for animation clip • Animation layout blocking with timing	10		Pr	10	10
4	• Posing with Animation principals • Animation blocking and breakdown keys of Animation clip	12		Pr	12	10
5	• Adding secondary action and principals in animation clip • Animating cloths and hairs	14		Pr	14	10
Total Hours		60		Pr	60	40
Text Books		1. "The Animator's Survival Kit" by Richard Williams				

	2. “The Animator's Workbook” by Tony White 3. “Shot by shot visualizing from concept to screen” by Steven D. Katz
Reference Books	1. “How to Cheat in Maya 2012” by Eric Luhta& Kenny Roy 2. Maya Character Animation, 2nd Edition by Jae-Jin Choi and Sybex (Feb 2, 2004)

YEAR	3 rd year	
SEMESTER	5 th	
NAME OF COURSE	3D Dynamics(PR)	
COURSE CODE	BSAV-24-506	
PAPER NO	VI	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory :	Practical :4
TEACHING HOURS	Theory:	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To elucidate basic physics involved behind effect creation
- To explain dynamic body simulation in CG space
- To create particle simulation for liquids and gaseous medium
- To use soft bodies and goals
- To design particle systems and simulate for motion graphics and other CGI productions

COURSE OUTCOME:

The student will be able to

- Describe physics requirement in effects creation
- Demonstrate believable rigid body collisions in CG space
- Create effects using particles like dust, fire, crowd, water spray and many more
- Formulate strategies for creating Vortex, Rain and other soft body simulation
- Demonstrate nature element simulations in motion graphics and other CG production

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)

1	Unit 1 Applied Physics: Introduction to Applied Physics and Quantum mechanics, Kinetic Motion, Energy Conversion, Quantum Physics	12		Pr	12	10
2	Unit 2 Dynamic Bodies: Introduction to special effects — Rigid bodies – Active and passive rigid bodies -Physics based procedural animation using rigid bodies Collisions – Normals – Fields and its attributes – Simulation of fields	12		Pr	12	10
3	Unit 3 Particle System: Particles – Emitters – Emitter types and attributes - Deflectors and its attributes Simulating particle effects, Particle effects and collisions, Collision events, connecting camera with particles.	12		Pr	12	10
4	Unit 4 Soft Bodies and Goals: Goals – Soft Bodies – Animating soft bodies - Springs– Simulating special effects – vortex - gravity – lighting – rain	12		Pr	12	10
5	Unit 5 Effects: Destruction of objects experiments, nature elements simulation using particles [Water, smoke, fire etc] Rendering simulations, Optimizing simulations, Simulation for Video and motion graphics	12		Pr	12	10
Total Hours		60		Pr	60	40

Text Books	1. Maya Studio Projects: Dynamics - Todd Palamar, Publisher: Sybex; 1 edition
Reference Books	1. Modeling the Environment: Techniques and Tools for the 3D Illustration of Dynamic Landscapes - Bradley Cantrell and Natalie Yates (Mar 27, 2012)

3rd YEAR

SEMESTER VI

YEAR	3 rd year	
SEMESTER	6 th	
NAME OF COURSE	Lighting and Rendering(PR)	
COURSE CODE	BSAV-25-601	
PAPER NO	I	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 5	
	Theory :	Practical :5
TEACHING HOURS	Theory:	Practical: 75(Teaching – 35 & Practical 40 hours)

COURSE OBJECTIVES:

- To classify shading attributes
- To illustrate Light attributes with respect to shading
- To explain different types of lights and its uses
- To appraise the concept of rendering
- To distinguish different render passes and its role in final image composition

COURSE OUTCOME:

The student will be able to

- Describe the significance of light and surface properties in real life and CG.
- Justify the role of different elements in CG lighting and shading.
- Inspect tools and techniques available in Lighting and suggest appropriate strategies for CG imagery
- Compose a visual expression for artwork for desired styling.
- Describe the Indirect lighting techniques

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weight age	
					INT (continuous evaluation)	EXT (end-sem)
1	Unit 1 Shading: Understanding 2D and 3D texture types in Maya -Creating bump, displacement and normal maps Creating double sided shading material -Understanding and Working layered shaders and textures	15		Pr	12	10
2	Unit 2 Lighting Theory: Lighting Theory, Studying Light and Surfaces, Natural and artificial light study, color, Aesthetics and mood, Roll of lighting in visual composition.	14		Pr	12	10
3	Unit 3 Lighting Types & Shadows: Light types, Attributes of Light Shadows and their functions, Shadow types, Depth mapped shadows, Ray-traced shadows	15		Pr	12	10
4	Unit 4 Art of Lighting: Understanding the Art of Lighting – 1, 2, 3point lighting, outdoor lighting, indoor lighting, product lighting. Optical FX – creating light glows and lens flares.	15		Pr	12	10
5	Unit 5 Rendering: Concepts of Rendering -Formats and aspect ratios -Render settings - Rendering optimization - Level of	17		Pr	12	10

	Details [LOD] – Ray tracing - Types of renderer Introduction to Indirect lighting techniques. Introduction to render passes.					
Total Hours		75		Pr	60	40
Text Books		1. Lighting and Rendering in Maya: Lights and Shadows by Jeremy Birn 2. Digital Lighting and Rendering (2nd Edition) by Jeremy Birn(May 7, 2006) 3. ShaderX7: Advanced Rendering Techniques by Wolfgang Engel (Mar 12, 2009)				
Reference Books		1. Light Shadow Space: Architectural Rendering with Cinema 4D® by Horst Sondermann 2. Advanced Lighting and Materials with Shaders by Kelly Dempski and Emmanuel Viale (Oct 31, 2004)				

Year	3 rd year	
SEMESTER	6 th	
NAME OF COURSE	Digital Background Design and Development(PR)	
COURSE CODE	BSAV-25-602	
PAPER NO	II	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory :	Practical :4
TEACHING HOURS	Theory:	Practical: 60(Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- Understand the fundamentals and principles of digital background design.
- Explore and apply different styles, perspectives, and compositions in digital environment creation.
- Use industry-standard digital tools and software for background design.
- Create mood, atmosphere, and storytelling through digital backgrounds.
- Develop professional-quality background assets for animation, games, and multimedia.

COURSE OUTCOME:

The student will be able to

- Identify and analyze various background styles and compositions used in media production.
- Apply visual storytelling techniques to create engaging and thematic backgrounds.
- Use tools like Adobe Photoshop, Illustrator, or Blender for digital background creation. Create layered backgrounds with depth, lighting, and perspective for 2D/3D animation.

- Design background assets suitable for integration into animated scenes or interactive platforms.

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end- sem)
1	Unit 1: Introduction to Background Design • Role of background in visual storytelling • Types: Static, looping, parallax, 2D/3D backgrounds • Elements of design: Composition, focal point, style • Study of backgrounds in animation, games, and cinema	12		Pr	12	10
2	Unit 2: Environment & Composition Design • Perspective: 1-point, 2-point, and 3-point • Silhouette, layout, and visual weight • Setting and staging for storytelling • Sketching thumbnails and composition drafts	12		Pr	12	10
3	Unit 3: Digital Painting Techniques • Textures, brushes, and color theory • Light and shadow for mood setting • Atmospheric perspective • Digital workflow using Photoshop/Procreate/Krita	12		Pr	12	10
4	Unit 4: Stylization and Theme	12		Pr	12	10

	Development - Background design styles: Realistic, stylized, minimalist - Designing environments: Urban, fantasy, sci-fi, nature - Color scripts and mood boards - Creating consistency across background sequences					
5	Unit 5: Background Design for Animation & Games - Layered background creation for 2D parallax - Tillable textures and looping backgrounds - Conceptualizing and designing an animated scene background - Industry-standard presentation: Turnarounds, breakdowns,	12		Pr	12	10
Total Hours		60		Pr	60	40
Text Books		Digital Painting Techniques: Practical Techniques of Digital Art Masters <i>By 3dtotal Publishing</i> How to Draw: Drawing and Sketching Objects and Environments from Your Imagination <i>By Scott Robertson and Thomas Bertling</i> Framed Ink: Drawing and Composition for Visual Storytellers <i>By Marcos Mateu-Mestre</i>				
Reference Books		Background Design for Animation <i>By Mike Wiesmeier</i> Color and Light: A Guide for the Realist Painter <i>By James Gurney</i> Digital Painting for the Complete Beginner <i>By Carlyn Beccia</i>				

Year	3 rd year	
SEMESTER	6 th	
NAME OF COURSE	Motion Graphics(PR)	
COURSE CODE	BSAV-24-603	
PAPER NO	III	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 4	
	Theory :	Practical :4
TEACHING HOURS	Theory:	Practical: 60 (Teaching – 30 & Practical 30 hours)

COURSE OBJECTIVES:

- To understand the tools and techniques to create Motion graphics and effects
- To Learn Problem solving techniques to rectify the errors during the process of motion graphics
- To formulate content for broadcast, feature film and animation.
- To understand the types of titles and implement animation methods in new titles
- To discover the typography and effects used in film and other visual mediums.

COURSE OUTCOME:

The student will be able to

- Discover the significance and evolution of Motion Graphics.
- Appraise the strategies for tools and techniques in Motion Graphics.
- Apply the graphical illustrations to produce interactive graphics.
- Compose a visual expression for Artwork using motion graphics.
- Create motion graphics with final output.

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	Unit 1 Introduction to Motion Graphics: History of Motion Graphics, early animation techniques, early cinematic inventions, experimental animation, Motion graphics in Film titles and television, Montages, Film Titles, Network Branding, Commercials, Music videos, Interactive Media,	12		Pr	12	10

	Digital signage, New Technology Create an animated video using basic shapes Animate the 2d text using presets Animate a 3D typography using 3d composite					
2	Unit 2 Tools and Techniques: Creating a composition, A matter of Time and Space, Layer Essentials, Trimming layers, Stretch, Reverse and Blend, Motion blur, Modes, Masks and Mattes Blend typography and graphics for music Create a Kinematic typography animation for a song Create a motion graphics using inbuilt plug-in like flare and particles	12		Pr	12	10
3	Unit 3 Motion Theory: The language of motion, spatial and temporal motion, coordinating movement. Visual properties, Image considerations, Typography animation, blending all three mediums, pictorial composition, sequential composition. Create a logo intro using external plugins Create a 3D logo using Element 3D Using parallax animation method, create a motion graphics video	12		Pr	12	10
4	Unit 4 Animation in Motion Graphics: Animation process, Key frame animation, using effects and expressions, animating	12		Pr	12	10

	using sound, Using the puppet tool and the Roto Brush Tool, Building 3D objects, using 3D Features Blend the CG and Live action elements for a TV promo video Create a 2d character animation using motion graphics Create 45 sec title animation for a film					
5	Unit 5Editing: Editing, Cuts and transitions, Establishing pace and rhythm, Birth Life and death, appending audio, Final output Create contemporary motion graphics using effects and live action Create a broadcast logo animation for a TV channel	12		Pr	12	10
Total Hours		60	-	Pr	60	40
Text Books		1. Creating Motion Graphics with After Effects: Essential and Advanced Techniques, by Chris Meyer 2. Adobe After Effects 2022 – Classroom in a book				
Reference Books		1. Techniques for Visual Effects, Animation and Motion Graphics (The Morgan Kaufmann Series in Computer Graphics) - Ron Brinkmann (Author)				

Year	3 rd year	
SEMESTER	6 th Semester	
NAME OF COURSE	OJT/ Field Work – (PR)	
COURSE CODE	BSAV -24-604	
PAPER NO	IV	
MARKING SCHEME	End-Semester (EXT): 40	Continuous evaluation (INT): 60
CREDITS	Total: 6	
	Theory: 0	Practical :4
TEACHING HOURS	Theory: 0	Practical: 90

COURSE OBJECTIVES:

- To provide students with hands-on industry experience relevant to their field of study.
- To bridge the gap between academic learning and professional practice through real-world exposure.
- To develop professional competencies including communication, teamwork, time management, and problem-solving.
- To enable students to apply theoretical knowledge in practical work settings.
- To encourage adaptability, responsibility, and ethical work behavior in a professional environment.

COURSE OUTCOME:

The student will be able to

- Understand workplace structure, roles, and processes within their field.
- Apply subject-specific knowledge and technical skills in a real-world context.
- Demonstrate effective communication, collaboration, and time management at the workplace.
- Identify and solve basic work-related problems independently or within a team.
- Exhibit professionalism, ethical conduct, and responsibility in all assigned tasks.

COURSE DETAILS:

Unit No	Title of unit with detailed content	No of teaching-learning hours	Theory	Practical	Marks Weightage	
					INT (continuous evaluation)	EXT (end-sem)
1	Orientation & Pre-Placement Briefing • Guidelines, expectations, and assessment methods • Code of conduct			PR		
2	Industry/Field Work			PR		

	- Assigned tasks and responsibilities under mentor supervision - Application of technical and interpersonal skills in daily work					
3	Documentation & Reporting - Daily or weekly logbook/diary - Final OJT/Field Work Report with reflection, learning outcomes, and feedback			PR		
4	Review & Evaluation - Employer's feedback - Faculty assessment of report and presentation			PR		
Total Hours		90	-	Pr	60	40