ABEDA INAMDAR COLLEGE PUNE

Diploma Course In Visual Effects

(Faculty of Science & Technology)

Visual Effects

Choice Based Credit System Syllabus

To be implemented from Academic Year 2021-2022

Title of the Course: Diploma Course in Visual Effects

Preamble:

The field of cinema is rapidly changing. With the advent of 2D and 3D stereoscopic, the way of looking and experiencing films is altering. VFX has grown tremendously in the past decade because of the onslaught of new and changing technology. Visual effect is used in games, movies and television shows. With the advanced technology and equipment Hollywood and Bollywood uses VFX to create overwhelming effects and realistic environments. The VFX is usually done at the last stage that is the postproduction in editing but it is planned at the preproduction and production stage under the guidance of the director and VFX supervisor after the story is finalized. Therefore, the faculty of the computer science department has felt the requirement to start with a certificate course in VFX.

Introduction:

To prepare students for the field of visual arts and equip them with all the necessary tools that this field requires. Making seamless and photorealistic renders is the prime objective of this course. The aim of this 24-Month course is also to equip the students with skills that will help them find employment in the global market. However, adding VFX can be a humongous task and involves a lot of people for rendering a perfect shot. Therefore, artists should be able to have full control over their images. VFX is not only used for science fiction or fantasy films but is also used in period dramas. Upon completing the graduation, the passed-out students can work in: TV channels/ Production houses VFX studios Gaming Industry Media and Advertising Also as an independent freelancer.

Prerequisite:

- Students must have basic operational knowledge of computers.
- Students must understand English language.
- Students must have basic knowledge of the Internet.

Duration: The Program comprises four semesters.

Evaluation: Four semesters program with the combination of 60% Semester End Examination and 40% Continuous Evaluation per semester.

Number of seats: 60

Eligibility: 10+2 Any Stream

Titles of Papers, Credit Allocation and Scheme of Evaluation

(Total credits=30)

Paper Code	Course Type	Paper title	Credits		Evaluation		
			T	P	CE	SEE	Total
21AUCCVFX101	Core Credit Theory	The Art of Filmmaking	4	-	40	60	100
21AUCCVFX102	Core Credit Theory	Digital Video Editing Fundamentals	4	-	40	60	100
21AUCCVFX103	Core Credit Theory	Digital Visual Effects and Compositing	4	-	40	60	100
21AUCCVFX104	Core Credit Practical	Video Editing in Premiere Pro	-	4	40	60	100
21AUCCVFX105	Core Credit Practical	After Effects VFX Motion Graphics	-	4	40	60	100
21AUCCVFX106	Core Credit Practical	Rotoscoping in Silhouette FX	-	4	40	60	100
21AUCCVFX107	Core Credit Practical	Project/Portfolio	-	6	60	90	150
Total			12	18	300	450	750

Titles of Papers, Credit Allocation and Scheme of Evaluation

(Total credits=30)

Paper Code	Course Type	Paper title	Credits		Evaluation		
			T	P	CE	SEE	Total
21AUUGDVFX201	Core Credit Theory	Video Production Basics	4	-	40	60	100
21AUUGDVFX202	Core Credit Theory	Art Direction for Film	4	-	40	60	100
21AUUGDVFX203	Core Credit Theory	Visual Communication	4	-	40	60	100
21AUUGDVFX204	Core Credit Practical	Rotoscoping in After Effects	-	4	40	60	100
21AUUGDVFX205	Core Credit Practical	Compositing with After Effects	-	4	40	60	100
21AUUGDVFX206	Core Credit Practical	Paint and prep in Nuke	-	4	40	60	100
21AUUGDVFX207	Core Credit Practical	Project/Portfolio	-	6	60	90	150
Total			12	18	300	450	750

Titles of Papers, Credit Allocation and Scheme of Evaluation

(Total credits=30)

Paper Code	Course Type	Paper title	Credits		Evaluation		
			T	P	CE	SEE	Total
21AUUGDVFX101	Core Credit Theory	ADVANCE VIDEO EFFECTS	4	-	40	60	100
21AUUGDVFX102	Core Credit Theory	The Art of Motion Graphics Design	4	-	40	60	100
21AUUGDVFX103	Core Credit Theory	Compositing Visual Effects	4	-	40	60	100
21AUUGDVFX104	Core Credit Practical	VFX Stereo Roto and Compositing	-	4	40	60	100
21AUUGDVFX105	Core Credit Practical	Blackmagic Fusion: Rotoscoping and Keying	-	4	40	60	100
21AUUGDVFX106	Core Credit Practical	Blackmagic Fusion: Prep/Clean Plate	-	4	40	60	100
21AUUGDVFX107	Core Credit Practical	Project/Portfolio	-	6	60	90	150
Total			**12**	**18**	**300**	**450**	**750**

Titles of Papers, Credit Allocation and Scheme of Evaluation

(Total credits=30)

Paper Code	Course Type	Paper title	Credits		Evaluation		
			T	P	CE	SEE	Total
21AUUGDVFX101	Core Credit Theory	Visual Effects Part II	4	-	40	60	100
21AUUGDVFX102	Core Credit Theory	The Fundamental of Blackmagic Fusion	4	-	40	60	100
21AUUGDVFX103	Core Credit Theory	VFX Solutions for the Independent Filmmaker	4	-	40	60	100
21AUUGDVFX104	Core Credit Practical	Advanced Compositing in Blackmagic Fusion	-	4	40	60	100
21AUUGDVFX104	Core Credit Practical	Advanced Compositing in Nuke	-	4	40	60	100
21AUUGDVFX105	Core Credit Practical	Project/Portfolio	-	4	40	60	100
21AUUGDVFX106	Skill Enhance	On Job Training	-	6	60	90	150
Total			12	18	300	450	750

Abbreviation:

T: Theory

P: Practical

CE: Continuous evaluation

SEE: Semester End Examination

Semester - 1

Course Type: Core Course Theory　　　　　**Course Code: 21AUCCVFX101**

Course Title: The Art of Filmmaking

Teaching Scheme	No. of Credits	Examination Scheme
5 Hours / Week	4	CE : 40Marks
		SEE: 60Marks

Course Objectives:

1. The prime objective of this unit is to introduce you to different aspects of camera work andalso aim at developing or honing your skills related to your camera work.

2. The unit will include knowledge that can benefit both a beginner and a professional in this field.

3. The unit will explain all types of camera work irrespective of whether an individual aims at becoming an amateur movie maker or a hardcore professional in camera operations.

Course Outcomes:
After going through this unit, you will be able to:
1　Define the terms used in video production
2　Understand the planning of a video shoot
3　Know about the various camera functions
4　Describe techniques of framing
5　Analyse the 'basic camera moves
6　Elucidate various shooting techniques

Course Contents		
Chapter 1	**HANDLING VIDEO CAMERA**	**12 Hour**

1.1 Video Camera Terminology
　　1.1.1 Shot
　　1.1.2 Framing & Composition
　　1.1.3 Transitions
1.2 Planning
　　1.2.1 Shoot Plan
　　1.2.2 Planning to Edit
　　1.2.3 Shot Plan
1.3 Camera Functions
　　　1.3.1 Zoom
　　　1.3.2 Focus
　　　1.3.3 Iris
　　　1.3.4 White Balance

Chapter 2	VIDEO CAMERA FOCUS	12 Hour

Chapter 3	VIDEO CAMERA TRIPODS	12 Hour

Chapter 4	VIDEO CHROMA—GREEN SCREEN	12 Hour

Chapter 5	SHOOTING EVENTS	12 Hour

Reference Books:

1. Cinematography & Directing By: Dan Ablan
2. Make Your Digital Movies By: Pete Shaner and Gernald Everett Jones

Semester – I

Paper - II

Course Type: Core Course Theory   **Course Code: 21AUCCVFX102**

Course Title: Digital Video Editing Fundamentals

Teaching Scheme 5 Hours / Week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:

1. Digital Video Editing Fundamentals was intended for the digital artist, digital videographer, multimedia producer, illustrator, application developer, website developer, user interface design architect, user experience designer, social media user, effects compositor, matte painter or just about anyone who's interested in generating superior quality digital video editing or special effects, delivered in popular MPEG and WebM video data formats.

2. This book covers digital video concepts, editing, special effects, titling, and transitions, and this equates to digital imaging and special effects fundamentals both combined into one book, including technical terms, topics, concepts, and definitions.

3. Each chapter will build upon the knowledge learned in the previous chapter. Thus, later chapters in the book have readers creating advanced digital video editing and effects projects by using clips, tracks, transitions, special effect FX algorithms, and similar video editing software features, dialogs, and tools.

Course Outcomes:

After going through this unit, you will be able to:
1. Identify the various components of Adobe Premiere workspace
2. Identify the limitations and capability of Adobe Premiere.
3. Identify the characteristics of different panels in Adobe Premiere.
4. Identify different kinds of special effects.
5. Exporting various methods of importing audio video and graphics.

Course Contents		
Chapter 1	The Tools of Digital Video: Non-Linear Editing Software	10 Hour

1.1 Open-Source Video Editing Tools

1.1.1 Distributed Digital Video Editing: Lightworks

1.1.2 Under Development: Avidemux, Pitivi, and Blende

1.1.3 Consumer Digital Video Editors: Low Cost

1.1.4 Prosumer Digital Video Editors: Mid Cost

1.2 Digital Video Hardware: Configuring the Workstation

1.2.1 Minimum System Requirements

1.2.2 Video Capture, Import, and Export: Data Formats

1.2.3 Suggested System Requirements: Realistic Editing

1.2.4 Video Editing Consoles: Your Peripherals

1.2.5 Affordable Digital Video Editing Shuttles

1.3 The Scope of Digital Video: Setting Up Your Workstation

1.3.1 New Media Genres: Multimedia Pie Slices

1.3.2 Installing Your Open-Source Software

1.3.3 Digital Image Editing and Compositing

1.3.4 Digital Audio Editing and Effects: Audacity

1.3.5 Digital Illustration and 2D Modeling: Inkscape

1.4 The Foundation of Digital Video: Static 2D Concepts

1.4.1 Computer Graphics: Raster versus Vector

1.4.2 Basic Vector Shapes: Vertex, Line, Arc, and Curve

1.4.3 Raster Concepts: Pixels, Aspect, Color, and Alpha

Chapter 2	**Movement in Digital Video: Frames, the 4th Dimension**	**12 Hour**

2.1 Digital Video Concepts and Terminology

2.1.1 Digital Video Concepts: Frames and Frame Rates

2.1.2 Digital Video Mathematics: Doing the Multiplication

2.1.3 Digital Video Compression Algorithms: Codecs

2.1.4 Codecs: MPEG-4 H.264, MPEG-H H.265 and WebM

2.1.5 Digital Video Resolutions: Industry Standards

2.1.6 Digital Video Storage: Captive versus Streaming

2.2 Audio Concepts and Terminology

2.2.1 Foundation of Analog Audio: Sound Waves of Air

2.2.2 Digital Audio: Samples, Resolution, and Frequency

2.2.3 Digital Audio Data: Transmission and Digitization

2.2.4 Digital Audio in Android: File Formats

2.2.5 MPEG3 Audio: A Popular Low Quality Data Format

2.3 Digital Camera Concepts and Technology

2.3.1 Still Camera vs. Video Camera: Static or Motion?

2.3.2 Resolution: How Many Pixels Can the Frame Hold?

2.3.3 Aspect Ratio: Shape of the Camera Image or Frame

2.3.4 Zoom Feature: Optical Lens Zoom vs. Digital Zoom

2.3.5 Camera Sensors: Charge-Coupled Devices (CCDs)

2.3.6 Image Data Formats: JPEG, TIFF, RAW, PEF, PNG

2.4 Top-Level Workflow: Capture, Edit, Share

Chapter 3	The Spectrum of Digital Video: Color Correction	8 Hour

Chapter 4	Publishing Digital Video: Content Delivery Platforms	4 Hour

4.3.4 A Video Player: MediaPlayer and MediaController		
Chapter 5	**Advanced Digital Video Editing**	**6 Hour**

5.1 Video Settings and Audio Settings
5.1.1 Compressor
5.1.2 Depth
5.1.3 Frame size
5.1.4 Frame rate
5.1.5 Quality
5.1.6 Recompress

5.2 Project Window
5.2.1 images, sound, and video files
5.2.2 clip edit window
5.2.3 File>Import>File
5.2.4 File>New>Bin

5.3 Timeline Window
5.3.1 tracks
5.3.2 timeline
5.3.3 timeline

5.4 Monitor Window
5.4.1 Displays source view
5.4.2 Transition Window

5.5 Video Effects Window
5.5.1 video effects
5.5.2 keyframes
5.5.3 Timeline>Preview

5.6 Audio Effects Window
5.6.1 audio effects
5.6.2 Effect Controls
5.6.3 Navigator

Chapter 6	**Video Transition and Effects**	**10 Hour**

6.1 Transitions
6.1.1 Transition Settings
6.1.2 Cross Dissolve
6.1.3 Dip to Black
6.1.4 Flip

6.2 Virtual Clip
6.2.1 Block Select Tool
6.2.2 Arrow tool
6.2.3 original clip in the timeline

6.3 Video and Audio Effects

Chapter 7	Some useful keying types	10 Hour

Reference Books: Digital Video Editing Fundamentals by Wallace Jackson

Semester – I

Paper - III

Course Type: Core Course Theory   **Course Code: 21AUCCVFX103**

Course Title: Digital Visual Effects and Compositing

Teaching Scheme	No. of Credits	Examination Scheme
5 Hours / Week	4	CE: 40Marks
		SEE: 60Marks

Course Objectives:

1. If I do present something that might seem like fluff, be assured, it isn't. Any example or information I include related to film, video, art, history, and so on, or something that might seem to be extraneous, has been carefully selected and is included for a very precise and practical purpose.
2. Usually, it is because the example is one of the earliest, and thus easiest to understand, and can form the basis for a very complex concept I cover later in the book.
3. One attribute that separates a traditional illusionist from his digital counterpart is secrecy. Whereas traditional magicians kept secrets to preserve the mystery of their tricks, the best visual effects artists I know are quick to break down their digital illusions and share them not only with other VFX artists, but the audiences as well

Course Outcomes: What you will learn:

1. Concepts and techniques for digital compositing
2. Image formats / resolutions / colors
3. 2d Tracking
4. Roto paint and Rotoscoping
5. Keyframe animation
6. Color correction / color grading techniques
7. Introduction to Chroma Keying / Green Screen removal
8. Camera traits (Lens distortion, grain, sensor noise)
9. Clean plating and removing objects from a scene.
10. Rendering

	Course Contents	
Chapter 1	**Film and Video Primer for VFX**	**10 Hour**

1.1 Intro to the Motion Picture/VFX Pipeline
  1.1.1 What Are Moviemaking and VFX?
  1.1.2 Principles of Motion Pictures and VFX
  1.1.3 Film School Crash Course

1.2 The Origins of Visual Effects
  1.2.1 Thomas Edison and Alfred Clark: Stop Motion
  1.2.2 Georges Méliès
  1.2.3 Oscar G. Rejlander

1.3 In the Beginning: In-Camera Effects
  1.3.1 Single-Pass In-Camera Techniques
  1.3.2 Matting for Multiple Exposure
  1.3.3 Traditional Animation

1.4 VFX Cues
  1.4.1 Camera
  1.4.2 Lights
  1.4.3 Depth and Atmospherics: Identifying Depth and Atmospheric Attributes
  1.4.4 Media: Identifying Film/Video Stock (Grain/Noise) Attributes

1.5 Digital Formats
  1.5.1 Data Transfer, Color Depth, and Compression Formats
  1.5.2 Resolution and Aspect Ratio Comparisons
  1.5.3 The Human Eye vs. Film and Video
  1.5.4 Shooting Speeds
  1.5.5 Format Comparisons and "What Is Film Look?"

1.6 VFX Concepts
  1.6.1 Thinking in Layers
  1.6.2 Complex and Multisource Operators
  1.6.3 (Blend/Transfer Modes)
  1.6.4 Extractions

Chapter 2	Introduction to VFX: Advanced Photoshop for 3D, VFX, and Digital Compositing	10 Hour

2.1 Photoshop Selection Methods

2.1.1 Simple Selections
2.1.2 Alpha Channels
2.1.3 Advanced Selections
2.1.4 Levels Adjustment
2.1.5 Channel Ops

2.2 Cloning

2.2.1 Basic Cloning Techniques, Tips, Tricks, and Strategies

2.3 2D Visual Effects

2.3.1 Paint: Wire and Wig Removal
2.3.2 Matte and Roto

2.4 Compositing

2.4.1 Compositing Applications
2.4.2 Layer-based Compositors
2.4.3 Nodal-based Compositors
2.4.4 Keyer Types and Concepts

Chapter 3	Rotoscoping, Motion Tracking, and 2D Matchmoving	8 Hour

3.1 Introducing Roto

3.1.1 Rotoscoping Mattes
3.1.2 Roto Basics: Types of Roto Splines
3.1.3 The Golden Rules of Roto
3.1.4 Isolated Roto for Keying
3.1.5 Roto Applications

3.2 2D Motion Tracking

3.2.1 Anatomy of a Motion Tracker
3.2.2 Types of 2D Motion Tracking
3.2.3 The Golden Rules of Motion Tracking
3.2.4 Comparing Good and Bad Tracking Targets
3.2.5 2D Motion Tracking Applications
3.2.6 Tracker Assisted Roto

3.3 2D Matchmoving

3.3.1 Stabilization
3.3.2 Destabilization
3.3.3 Advanced 2D Tracking Strategies.
3.3.4 Hand 2D Matchmoving

Chapter 4	VFX Techniques I: Basic Integration VFX	8 Hour

4.1 CG/VFX Lighting and Integration

  4.1.1 Method and Technique for VFX Element Lighting

  4.1.2 2D Motion Tracking and CG Integration

4.2 CG Integration with Live

  4.2.1 Analyze the Shot, Elements, and VFX to Be Created

  4.2.2 Light the Live Action Bluescreen/ Greenscreen or 3D CG Element to Be Integrated

  4.2.3 Track the Live Action Background Plate

  4.2.4 Composite and Matchmove Foreground Element over Live Action Background

  4.2.5 Fine-tune Color Correct (CC) and Finish Composite Adding Grading, Grain, Atmospherics, Artifacts

4.3 Roto VFX: Energy Weapons and Effects

  4.3.1 Components of an Energy Weapon or Effect

  4.3.2 Tips and Tricks for Energy VFX

4.4 Basic 2.5D VFX

  4.4.1 Basic 2.5D VFX

  4.4.2 2.5D Fake Shadows and Reflections

Chapter 5	VFX Techniques II: Advanced Integration and Card Trick VFX	8 Hour

5.1 Fine-Tuning Integration: Film Grain/Video Noise

  5.1.1 Matching and Light Wraps

  5.1.2 Matching Film Grain and Video Noise

  5.1.3 Creating Procedural Light Wraps

5.2 2D and 2.5D Crowd Replication

  5.1 2D Face Replacement

5.3 Card Tricks: Outside-the-Box Strategies

  5.3.1 The Grid 214

  5.3.2 House of Cards

  5.3.3 For the Birds

Chapter 6	VFX Techniques III: 3D VFX	4 Hour

6.1 3D Tracking and Matchmoving CG

  6.1.1 3D Tracking

  6.1.2 3D Matchmoving CG

6.2 Hand 3D Tracking: Match Imation

  6.2.1 3D Object Tracking and Replacement

  6.2.2 3D Motion Tracking Application Technique

  6.2.3 3D Motion Tracking Application

6.3 3D Matchmoving

  6.3.1 Advance 3D Tracking Strategies

Chapter 7	VFX Techniques IV: 2.5D VFX	12 Hour

7.1 2.5D Atmosphere FX

7.2 2.5D Smoke: Cloud FX

7.3 Faking Z-Depth and Ambient Occlusion
  7.3.1 Fake Ambient Occlusion (AO)
  7.3.2 Fake Z-Depth

7.4 Displacement FX: Water, Heat, Cloak

7.5 Sky Replacements
  7.5.1 Reverse Sky Replacement Method
  7.5.2 Extraction Sky Replacement Method

7.6 Day for Night and Summer for Winter
  7.6.1 Day for Night
  7.6.2 Summer for Winter

7.7 Digital 3D HUD Creation
  7.7.1 Wire and Rig Removal
  7.7.2 Time Ramping
  7.7.3 Multi-pass Rendering and Compositing

Reference Books: [digital] Visual Effects and Compositing by Jon Gress

Semester – I

Paper - IV

Course Type: Core Course Practical **Course Code: 21AUCCVFX104**

Course Title: Video Editing in Premiere Pro

Teaching Scheme 4hrs 20 mins Hrs / week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:
1. If you are looking for a video editing application that will allow you to edit videos however you want them, Adobe Premiere Pro is the best answer.
2. Premiere Pro is used by professionals across the world for every type of production from business & marketing videos, music videos to documentaries, feature films. This full course is the best way to jump right in and start editing.

Course Outcomes:
1. Master Premiere Pro and be CONFIDENT Editing Your Own Videos
2. Edit an entire video from beginning to end, using professional and efficient techniques.
3. By the end of the course, you'll have edited your own short documentary using either the supplied footage (video clips, photos, graphics, music, etc.), or your own footage!
4. Start a project with the right settings for any type of video, from any camera.
5. Export and save your videos for HD playback.
6. Edit your videos, and make them more dynamic with cutaway footage and photos.
7. Design clean and professional titles for your videos.
8. Add motion to your titles, photos, and videos... making them more visually interesting.
9. Color correct your video to fix issues with white balance and exposure.
10. Add a feeling to your video with color grading.

Guidelines :

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission: Length. Your video should be 4–7 minutes in length, plus time for a "credit roll" to show your references. Style. There are no restrictions on the style of the video (i.e., you may use a narrated slide show, a recorded lecture, a digital whiteboard, a stop motion animation (Claymation), a sock puppet show, animated graphics, a scripted scene, filmed artist drawings on paper, "man on the street" interviews, a combination of the above, etc.) Title slide. Your video should begin with a descriptive title, your name(s), the name of the school, and the year in which it was created. Original content. Aim to create your own resources. That means using your own drawings, pictures, music, animations, filmed scenes, and interviews. Where this is not possible, be sure that you only use material which falls under Creative Commons license (that you can use and modify without breaking copyright laws. Credits. Acknowledge the people who contributed to the video, including yourself, your interviewees, narrators and actors, people who supported the production, and your instructor, and specify that the video was made within the context of this course (course number, institution, date). File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.

Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For Editing and Making Final Video
Operating system: Windows 10
Software: Premiere Pro

Suggested List of Assignments:

Assignment 1.
Interface of Premiere, Tools, Panels and Effects

Assignment 2.
Create a Sequence and a Basic Video Line up

Assignment 3.
Adding video transitions & Basic CC

Assignment 4.
Adding Audio & Audio Transition

Assignment 5.
Adding professional and modern titles

Assignment 6. Stop Motion - Image Sequence- Trimming Images - Time Duration

Suggested List of Assignments:

    Assignment 1.
    keying Green Chroma - Using Ultra Keyer

    Assignment 2.
    Cloning (Create Duplicating Person)

    Assignment 3.
    Color correction (Effect)

    Assignment 4.
    Slide Presentation

    Assignment 5.
    Lens & Text Effects

    Assignment 6.
    Intro Title Sequence

    Assignment 7.
    Time Remapping

    Assignment 8.
    Track Matt Effect

    Assignment 9.
    Lower Third

Books: Laboratory handbook

Semester – I

Paper - V

Course Type: Core Course Practical   **Course Code: 21AUCCVFX105**

Course Title: After Effects VFX Motion Graphics

Teaching Scheme 4hrs 20 mins Hrs / week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:

1. After Effects is a Compositing, VFX, and Motion graphics application developed and owned by Adobe Systems.
2. It is generally used in the post-production stage of the film making and TV production pipeline. Besides the features mentioned above, After Effects can effectively perform a handful of jobs as keying, tracking, compositing, and animation.
3. With this software application, you can even work on some non-linear editing in Video and Audio platforms.

Course Outcomes:

On completion of this course, students will be able to:

1. Apply basic and high-level techniques in compositing.
2. Know what, when and how to do simple to advanced compositing in Adobe After Effects
3. This course gives an in-depth knowledge of Compositing & Motion Graphics using Adobe After Effects CC.
4. Know how to use Adobe After Effects for simple to advanced compositing of live-action shots

Guidelines :

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission:

Your video should be 4–7 Sec in length, plus time for a "credit roll" to show your references. Render should be in Alpha, Color, and with Shapes for final video.

File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.

Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished

product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For VFX Compositing

Operating system: Windows 10

Software: After Effects

Suggested List of Assignments:

Assignment 1.
Change the Color of T-Shirt Using Change to color Effects

Assignment 2.
Ball Animation Using PNG & Shapes

Assignment 3.
Multi Malking & Keying

Assignment 4
Infographics - Using 3D Camera Add Text (Graffiti)

Assignment 5
Flourish Effects

Assignment 6
Basic of Illustration files and Create Info Video

Assignment 7
Create a Basic Shape and Add Text with Animation shapes

Assignment 8
Create Phone with shapes and Add Motion

Suggested List of Assignments:

Assignment 1.
Using Trip Path & Roucghen Edges create Stroke in the Image or Video

Assignment 2.
Circle Shape Animation with Trim Path

Assignment 3.
Create & Animate Liquid lines with CC Particles

Assignment 4.
Logo Reveal using Expression & Vegas Effects

Assignment 5.
Logo Reveal using Turbulent effects & Linear Wipe

Assignment 6.
3D layers with Camera Projection

Assignment 7.
3D Camera Projection Using Puppet Tool

Assignment 8.
Circle Animation Using Multiple Shapes with Radial Wipe & Repeater

Assignment 9.
3D Compositing with Passes using Extractor

Assignment 10.
Logo reveal Saber Plugin

Books: Laboratory handbook

Course Type: Core Course Practical   **Course Code: 21AUCCVFX106**

Course Title: Rotoscoping in Silhouette FX

Teaching Scheme 4hrs 20 mins Hrs / week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:

1. In this course, you will learn everything from Mask types to manual roto to fully automated workflows, showcasing Silhouette Fx, the industry-standard software for rotoscoping, and its comprehensive roto module.
2. The course begins with an in-depth roto foundations class, then transitions to an extensive tour of the Silhouette Fx interface and shot approach tips.
3. The fundamentals of all the Mask types, rotoscoping methodologies including shape creation and keyframing, multiple tracking methods, how to successfully roto a shot from beginning to end.

Course Outcomes:

On completion of this course, students will be able to:

1. Know what, when and how to do proper rotoscoping.
2. The rotoscoping technique in Silhouette FX
3. Know how to use Silhouette and Mocha for rotoscoping live action shots
4. Basic and advanced techniques in rotoscoping

Guidelines:

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission: Your video should be 4–7 Sec in length, plus time for a "credit roll" to show your references. Render should be in Alpha, Color, and with Shapes for final video.

File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.

Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For VFX Rotoscoping and Tracking

Operating system: Windows 10

Software: Silhouette FX

Suggested List of Assignments:

Assignment 1.
Single Masking VFX Roto

Assignment 2.
Multi Masking Roto

Assignment 3.
Stereo Masking Character

Assignment 4.
Stereo Masking BG

Assignment 5.
1 Point Tracking

Assignment 6.
2 Point Tracking

Suggested List of Assignments:

       Assignment 1.
       4 Point Tracking

       Assignment 2.
       Mocha Tracking

       Assignment 3.
       Planner Tracking

       Assignment 4.
       Creating Tracker from shapes

       Assignment 5.
       Finalizing Character Roto into Composition

Books: Laboratory handbook

Visual Effects (UG Question Paper Pattern)

    a. **Evaluation Criteria :** The evaluation of students will be based on three parameters:-
- Continuous Internal Evaluation (CIE).
- Practical / Project Examination
- Semester End Examination.

      i. **For Continuous Internal Evaluation (CIE):** Internal assessment will be as follows:

Theory Examination

Credits :4
Duration : 1Hr/Exam
Marks:40

10 Marks Academic Performance	10 Marks Spirit of Collaboration	10 Marks Quiz Submission	10 Marks Class Test
Attendance	Active participation in class activities.	Submission of end module quizzes on regular basis	Minimum 40% marks required to get marks for class test.

ii. **For Practical/Project Examination:** Internal assessment will be as follows:

Practical Credits :4 Marks:40			Project Credits :6 Marks:60		
10 marks	**20 Marks**	**10 Marks**	**20 marks**	**20 Marks**	**20 Marks**
Attendance	Assignment submission on time	Lab Course Book / Journal	Idea and Originality	**accuracy** and reliability	Presentation

For Semester End Examination: The Duration of the SEE will be as follows:

For Theory Examination

Credits: 4 Marks : 60 Duration : 2.5 hrs		
Q1	**Q2**	**Q3**
10 marks	20 marks	30 marks

Short answers **(any 5)** Each carry 4 marks)	Descriptive **(any 2)** Each carry 10 marks	Multi choice questions **(any 15)** Each carry 2 marks

For Practical/Project Examination

Practical Credits : 4 Marks:60 Duration : 3.5 Hours						Project Credits :6 Marks :90 Duration : 3.5 Hours	
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Portfolio**	**Project Presentation And Design**
10 marks	10 marks	10 marks	10 marks	10 marks	10 marks	45 marks	45

Semester - 2

Semester – II		
Paper - I		
Course Type: Core Course Theory		Course Code: 21AUUGDVFX201
Course Title: Video Production Basics		
Teaching Scheme 5 Hours / Week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:

1. The media arts department enables students to become creative media makers and critical thinkers. Students are encouraged to create media as self-expression to engage with the world around them, to foster inter-cultural and interdisciplinary dialogue; and to reflect on social issues.

Course Outcomes:

1. Identify and describe key terms, concepts, major trends, and periods related to various modes of production (narrative, documentary, experimental, and/or animation), film history, and theory.
2. Demonstrate skills necessary to effectively collaborate and communicate on video project productions including working in groups and engaging with peers and professors.
3. Demonstrate skills required to create quality media productions including skills in story development, producing, cinematography, editing, and audio production/postproduction.

Course Contents

Chapter 1	Overview of Video Production	10 Hour

1.1 Overview of video production
  1.1.1 Overview of Video Production
  1.1.2 Collection of both high-budget and low-budget video
  1.1.3 High-quality consumer equipment

1.2 First step in video production
  1.2.1 The need for "know-how"
  1.2.2 Video Camera
  1.2.3 Designed for you

1.3 Learning basics
  1.3.1 What is the equipment for?
  1.3.2 What can it do?
  1.3.3 What are its limitations?
  1.3.4 Where are the controls and indicators (menus, buttons, etc.)?
  1.3.5 How and when should they be adjusted?
  1.3.6 When adjusted, what will the result be?
  1.3.7 Will problems occur if these controls are misused?

1.4 Remember the purpose
  1.4.1 handle equipment

1.5 Equipment
  1.5.1 Type of production
  1.5.2 Camera
  1.5.3 Tripod

1.6 Versatility of Video Medium
  1.6.1 The television camera
  1.6.2 Automated camera
  1.6.3 Microscopic camera

1.7 Video Presentation
1.7.1 Television set
1.7.2 Computer online
1.7.3 Mobile phones
1.7.4 Large screen projection

Chapter 2	Production Crew	10 Hour

2.1 Production crew size
2.1.1 Video production crew job descriptions

2.2 Producer
2.2.2 Assistance producer
2.2.3 Associate producer

2.3 Director
2.3.1 Creatively visualizing the script or event
2.3.2 Assistant director
2.3.3 Associate director

2.4 Manager
2.4.1 Floor manager
2.4.2 Stage manager

2.5 Production assistant
2.5.1 Assists the director or producer

2.6 Technical director (TD)
2.6.1 Vision Mixer
2.6.2 Multi Camera

2.7 Camera Operator
2.7.1 Setting up their cameras
2.7.2 Camera assistant
2.7.3 Focus Puller

Chapter 3	Organizing the Production	10 Hour

3.1 Art conceals craft
3.1.1 Shot selection
3.1.2 The problem of familiarity
3.1.3 Shooting scenes

3.2 The problem of quality
3.2.1 The problem of quality
3.2.2 Communication can be elusive
3.2.4 Start with an idea (concept)

3.3 Goals and objectives
3.3.1 Target audience
3.3.2 The viewing audience
3.3.3 Research

3.3.4 Covering the subject

3.4 The planned approach
3.4.1 Storyboards
3.4.2 Analyzing action
3.4.3 The three stages of production

3.5 Multi Camera shooting
3.5.1 shooting with two or more cameras
3.5.2 multi camera production

Chapter 4	**Production Techniques**	**10 Hour**

4.1 Single- and multi camera production
4.1.1 Single-camera production
4.1.2 Multi Camera production
4.1.3 Multi Camera ISO
4.1.4 Multi Camera production without a switcher

4.2 Television and Illusion
4.2.1 The illusion of reality
4.2.2 Camera operators

4.3 The camera's role
4.3.1 The camera as an observer
4.3.2 The persuasive camera

4.4 Beginning and ending
4.4.1 Production methods
4.4.2 How do you visualize something that does not exist?
4.4.3 Abstract subjects
4.4.4 General non specific subjects
4.4.5 Imaginary events

Chapter 5	**Writing for Video**	**10 Hour**

5.1 The script's purpose
5.1.1 Is a script needed?
5.1.2 Basic script formats
5.1.3 Single column format
5.1.4 Two column format

5.2 The full script
5.2.1 Tips for writing better dialog
5.2.2 The drama script

5.3 Suggestions on scriptwriting
5.3.1 Good scriptwriting
5.3.2 Be visual
5.3.3 Audio and video images

5.4 Assimilation

   5.4.1 Smooth-flowing sequence
   5.4.2 Relative pace
   5.4.3 Style

5.5 Developing the script

   5.5.1 The nature of the script
   5.5.2 Script Writing basics
   5.5.3 Ask yourself these questions

Chapter 6	The Camera	10 Hour

6.1 A range of models

   6.1.1 Video cameras come in all different shapes and sizes
   6.1.2 Single cameras
   6.1.3 Multi Camera

6.2 Camera craft

   6.2.1 ENG/EFP camera elements
   6.2.2 Stationary/studio camera elements

6.3 Camera features

   6.3.1 Main features
   6.3.2 Gain control
   6.3.3 Auto-black
   6.3.4 Auto-focus
   6.3.5 Auto-iris
   6.3.6 White balance or auto white
   6.3.7 Backlight control
   6.3.8 Black stretch or gamma adjustment.

6.4 The lens system

   6.4.1 The lens' focal length
   6.4.2 The lens' largest aperture
   6.4.3 Prime lens
   6.4.4 Zoom lens

6.5 Lens accessories

   6.5.1 The image sensor
   6.5.2 Sensitivity

6.6 The viewfinder

   6.6.1 Camcorders
   6.6.2 Indicators
   6.6.3 LCD swing-out viewfinder

Reference Books: Video Production Handbook by Gerald Millerson Jim Owens, Asbury College

Semester – II

Paper - II

Course Type: Core Course Theory   **Course Code: 21AUUGDVFX202**

Course Title: Art Direction for Film

Teaching Scheme 5 Hours / Week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:

1. Art directing is somewhat like snowboarding or skydiving—the essence of the activity is in the doing. In that way, an art director is by nature an action figure.
2. On one hand, creativity reigns with few boundaries; on the other hand, practicality takes primary focus. Balancing pairs of opposites, like art and commerce, make the job of art directing unique and challenging.
3. the art director on a film project operates as a department manager in form but as an artist in substance. In other words, business decisions for the art department are made on a daily basis.

Course Outcomes:

1. Understand the Process of Preproduction.
2. Analyze the design Process for the film.
3. Know about the Art department Setup.
4. Know the term of CGI and Digital Filmmaking

Course Contents		
Chapter 1	**Pre-Production Process**	**12 Hour**

1.1 STAGING

1.1.1   Main Functions

1.1.2   Patterns of Dramatic Movement

1.1.3   Changing the Stage Within a Scene

1.1.4   Staging as Part of a Film's Design

1.1.5   Working with a Location Floor Plan

1.1.6   Floor Plan and Staging for Notorious Patio Scene

1.2 THE CAMERA

1.2.1   The Camera as Narrator

1.2.2   The Reveal

1.2.3   Entrances

1.2.4   The Objective Camera

1.2.5   The Subjective Camera

1.2.6   Where Do I Put It?

1.3 Visual Design

1.3.1   Style

1.3.2   Coverage

1.3.3   Camera Height

1.3.4   Lenses

1.3.5   Composition

1.3.6   Where to Begin?

1.4 Working Toward Specificity in Visualization

1.4.1   Looking for Order

1.4.2   Dramatic Blocks and the Camera

1.4.3   Shot Lists and Storyboards

1.4.4   The Prose Storyboard

Chapter 2	The Responsibilities, The Relationships, and the Setup	8 Hour

2.1 Hierarchy of Responsibilities and Art Department Setup

   2.1.1 First Responsibilities

   2.1.2 Second Responsibilities

   2.1.3 Third Responsibilities

   2.1.4 Fourth Responsibilities

2.2 Art Department

   2.2.1 Interdepartmental PR

   2.2.2 Art Department Coordinator

   2.2.3 Digital Artists

   2.2.4 Set Designers

   2.2.5 Set Decorator

   2.2.6 Greensman

2.3 The Relationships

   2.3.1 Art Department

   2.3.2 Interdepartmental PR

2.4 The Setup

   2.4.1 Head Accountant and Staff

   2.4.2 Locations Manager and Staff

   2.4.3 UPM, Production Supervisor, and Production Office Staff

2.4.4 First Assistant Director and Staff
2.4.5 Previsualization Supervisor and Staff

| Chapter 3 | **The Design Process** | **10 Hour** |

3.1 Locations Department and Scouting
 3.1.1 First Scouts
 3.1.2 Second Scouts
 3.1.3 Third Scouts
 3.1.4 Fourth Scouts
 3.1.5 Fifth Scouts

3.2 Beginning the Design Process
 3.2.1 Research
 3.2.2 Storyboarding
 3.2.3 Animatics

3.3 Concept Illustrating
 3.3.1 Computer Modeling
 3.3.2 White Models 73
 3.3.3 Hand Drafting

3.4 Designing for the Lens
 3.4.1 Lenses 101
 3.4.2 Aspect Ratio
 3.4.3 Perspective 101
 3.4.4 Lens Test

| Chapter 4 | **A Legacy of Historical Techniques** | **8 Hour** |

4.1 Painted Glass
 4.1.1 Gate Matting
 4.1.2 The Process Camera
 4.1.3 Traveling Mattes

4.2 Miniatures
 4.2.1 Hanging Foreground Miniature
 4.2.2 Foreground Miniature
 4.2.3 Cutouts: A Variation on Miniatures
 4.2.4 Forced Perspective
 4.2.5 Mobile Miniatures

4.3 Front Projection
 4.3.1 Rear Projection and Mirrors
 4.3.2 Camera Projection
 4.3.3 Perspective

Chapter 5	**Paperwork and Production Tasks**	**12 Hour**

Chapter 6	**Art Director's Plans**	**10 Hour**

 Reference Books:

**Reference Books: Film Directing
Fundamentals. By: Nicholas T. Proferes
The Art Direction
Handbook for Film By: Michael Rizzo**

Semester – II

Paper - III

Course Type: Core Course Theory   **Course Code: 21AUUGDVFX203**

Course Title: Visual Communication

Teaching Scheme	No. of Credits	Examination Scheme
5 Hours / Week	4	CE : 40Marks
		SEE: 60Marks

Course Objectives:

1. Visual communication is the communication done with the help of visual aid. It can be described as the conveyance of information and ideas in a manner, which can be read or looked upon. Such communication totally relies on vision and, thus, is basically expressed or presented with two-dimensional images.
2. Signs, drawings, typography, graphic design, illustration, electronic resources and color are the basic components of visual communication. The idea that a visual message, which accompanies the text always has a greater power to educate, inform or persuade an audience or person, is also empowered by visual communication.

Course Outcomes:

1. Understand the basic concept of visual communication.
2. Learn the characteristics of dot in visual.
3. Explain how to create a line in a visual
4. Describe the functions of shape and space.
5. Identify the functions of shape and space.
6. Learn how to utilize different types of textures in pictures.
7. learn about the use and significance of main components of color.
8. Understand the basics of scale.
9. Identify how dimension and motion can add value to a visual picture

Course Contents		
Chapter 1	**BASIC VISUAL ELEMENTS**	**10 Hour**

1.1 Basics of Visual Communication
    1.1.1 How You See: Visual Relationships
    1.1.2 Telling a Story: Visual Hierarchy
    1.1.3 Syntactic Theory of Visual Communication

1.2 Basic Visual Elements: An Introduction
1.2.1   Dot
1.2.2   Line
1.2.3   Shapes and Space
1.2.4   Direction
1.2.5   Understanding Texture

1.3 Color: Hue, Value and Saturation
1.3.1   Hue
1.3.2   Saturation
1.3.3   Value
1.3.4   Form: Light and Dark
1.3.5   Numerical Values assigned to Hue, Saturation and Value

1.4 Basic of Scale
1.4.1   create contrast.
1.4.2   add emphasis.

1.4.3   provide proportion.
1.4.4   create visual hierarchy.
1.4.5   create structure and order.
1.4.6   create tension through the exaggerated & unexpected size of an object.

1.5 Dimension and Motion
1.5.1   Infographics.
1.5.2   Process Diagrams.
1.5.3   Flow Charts.
1.5.4   Roadmaps.
1.5.5   Charts and Graphs.

1.6 Composition and Principles of Design
1.6.1   Balance
1.6.2   Symmetrical balance
1.6.3   Asymmetrical balance
1.6.4   Movement
1.6.5   Rhythm
1.6.6   Contrast
1.6.7   Emphasis
1.6.8   Pattern
1.6.9   Unity

Chapter 2	ORAL AND VISUAL CULTURE: A DOMINANT FORM OF COMMUNICATION	14 Hour

2.1 Oral Communication
2.1.1   Oral Communication Definition
2.1.2   Oral Communication Models
2.1.3   Noise in Oral Communication
2.1.4   How to Make Oral Communication Effective?
2.1.5   Advantages of Oral Communication

2.2 Power of Orality
2.2.1   Additive
2.2.2   Redundant
2.2.3   Theory of the Characteristics of Oral Culture
2.2.4   Difference between Orality and Oratory
2.2.5   Unfamiliar with Syllogisms

2.3 Modes of Oral Communication
2.3.1   Telephone/Cellular phone
2.3.2   Messages
2.3.3   Intercom
2.3.4   Face-to-face discussion
2.3.5   Meetings/Conferences
2.3.6   Presentation
2.3.7   Dictaphone/Dictation
2.3.8   Conversation

2.4 Visual Rhetoric
2.4.1   What is visual rhetoric?
2.4.2   Visual literacy
2.4.3   Visual thinking

Chapter 3	**CLASSICAL PHILOSOPHICAL THEORIES OF PERCEPTION**	**12 Hour**

3.7.2 Philosophy
3.7.3 scientific realism or direct and indirect realism
3.7.4 Virtual Reality and Realism
3.7.5 Direct realist responses to criticism

Chapter 4	**PHOTOGRAPHIC COMPOSITION**	**12 Hour**

4.1 Introduction to Photography
  4.1.1   Camera Controls for Good Photography
  4.1.2   Processing an Image

4.2 Photographic Composition
  4.2.1   Subject
  4.2.2   Simplicity
  4.2.3   Leading Lines
  4.2.4   Frame
  4.2.5   Point of View
  4.2.6   Camera Angles
  4.2.7   Balance

4.3 Composition Rules
  4.3.1   Two-Dimensional Composition
  4.3.2   Three-Dimensional Composition
  4.3.3   Rules of thirds
  4.3.1 Three-Dimensional Composition
  4.3.2 Layers of textures/lighting
  4.3.3 Silhouettes
  4.3.4 Depth of field

Chapter 5	**TYPES OF PHOTOGRAPHY**	**12 Hour**

5.1 Introduction to Types of Photography
  5.1.1 Styles of Photography
  5.1.2 Types of photography
  5.1.3 Types of camera
  5.1.4 Single lens reflex

5.2 Aerial Photography
  5.2.1 Skills and Techniques Required for Aerial Photography
  5.2.2 Commercial aerial photography

5.3 Astrophotography
  5.3.1 What is Astrophotography?
  5.3.2 Types of Night Sky Photography
  5.3.3 Equipment and Camera Considerations
  5.3.4 Astrophotography Tips and Techniques
  5.3.5 Light Painting

5.4 Commercial Photography
  5.4.1 Event Photography
  5.4.2 Wedding Photography
  5.4.3 Sports Photography

5.5 Underwater photography
5.5.1 Lighting
5.5.2 Equipment
5.5.3 Underwater flash
5.5.4 Skills and training
5.5.5 Timeline

**Reference Books: Reference Books: The Visual Story by Bruce Block,
Essentials of Visual Communication Book by Bo Bergström**

Semester – II

Paper - IV

Course Type: Core Course Practical   **Course Code: 21AUUGDVFX204**

Course Title: Rotoscoping in After Effects

Teaching Scheme 4hrs 20 mins Hrs / week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:
1. In this course, you will learn everything from Mask types to manual roto to fully automated workflows, showcasing After Effects, the industry-standard software for rotoscoping, and its comprehensive roto module.
2. The course begins with an in-depth roto foundations class, then transitions to an extensive tour of the After Effects interface and shot approach tips.
3. The fundamentals of all the Mask types, rotoscoping methodologies including shape creation and keyframing, multiple tracking methods, how to successfully roto a shot from beginning to end.

Course Outcomes:

On completion of this course, students will be able to:
1. Know what, when and how to do proper rotoscoping.
2. The rotoscoping technique in Adobe After Effects
3. Know how to use After Effects and Mocha AE for rotoscoping live action shots
4. Basic and advanced techniques in rotoscoping

Guidelines :

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission:

Your video should be 4–7 Sec in length, plus time for a "credit roll" to show your references. Render should be in Alpha, Color, and with Shapes for final video.
File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.
Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For VFX & Stereo Rotoscoping and Tracking
Operating system: Windows 10
Software: After Effects

Suggested List of Assignments:

Assignment 1.
Check the Interface of After Effects, create a single Mask using Pen Tools.

Assignment 2.
Create a ball animation using shapes.

Assignment 3.
Create multi mask using solid layer.

Assignment 4.
Basics of using tracking and rotoscoping together.

Suggested List of Assignments:

   Assignment 1.
   Using multiple trackers to capture rotation and scaling.

   Assignment 2.
   Using multi-Masking create human rotoscoping.

   Assignment 3.
   Create a Stereo Roto on human character.

   Assignment 4.
   Final Compositing of Roto Character

Books: Laboratory handbook

Semester – II

Paper - V

Course Type: Core Course Practical　　　　**Course Code: 21AUUGDVFX205**

Course Title: Compositing with After Effects

Teaching Scheme 4hrs 20 mins Hrs / week	No. of Credits 4	Examination Scheme CE : 40Marks SEE: 60Marks

Course Objectives:
1. After Effects is a Compositing, VFX, and Motion graphics application developed and owned by Adobe Systems.
2. It is generally use in the post-production stage of the film making and TV production pipeline. Besides the features mentioned above, After Effects can effectively perform a handful of jobs as keying, tracking, compositing, and animation.
3. With this software application, you can even work on some non-linear editing in Video and Audio platforms.

Course Outcomes:

On completion of this course, students will be able to:
1. Apply basic and high-level techniques in compositing.
2. Know what, when and how to do simple to advanced compositing in Adobe After Effects
3. This course gives an in-depth knowledge of Compositing & Motion Graphics using Adobe After Effects CC.
4. Know how to use Adobe After Effects for simple to advanced compositing of live-action shots

Guidelines :

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission:

Your video should be 4–7 Sec in length, plus time for a "credit roll" to show your references. Render should be in Alpha, Color, and with Shapes for final video.

File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.

Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For VFX Compositing

Operating system: Windows 10

Software: After Effects

:

Suggested List of Assignments:

Assignment 1.
Create Comp and Apply Basic Effects on Footage

Assignment 2.
Change the Color of T-Shirt Using Change to color Effects

Assignment 2.
Ball Animation Using PNG & Shapes

Assignment 2.
Multi Masking & Keying

Assignment 2.
One Point Tracking

Assignment 2.
Sky Replacement Using 1 Point Track

Assignment 2.
Keying & Two Point Tracking

Suggested List of Assignments:

    Assignment 1.
Two Point Tracking Tatoo Remove Clean Plate

    Assignment 2.
Four Point Tracking

    Assignment 3.
Camera Track with Masking Comp

    Assignment 4.
Flourish Effects

    Assignment 5.
Cg Compositing

    Assignment 6.
Live Action Compositing

Books: Laboratory handbook

Semester – II

Paper - VI

Course Type: Core Course Practical   **Course Code: 21AUUGDVFX206**

Course Title: Paint and prep in Nuke

Teaching Scheme	No. of Credits	Examination Scheme
4hrs 20 mins Hrs / week	4	CE : 40Marks SEE: 60Marks

Course Objectives:

1. This Nuke Training course will take you through the fundamental concepts of VFX Industry in nuke. It willguide you Step by Step to get started in Nuke. We will be working on shots which you can expect to get,when you are entering the Vfx industry.
2. You will learn from Basics how to create a organized file structure, Nuke Interface, concept behind usingparticular nodes, Introduction to gizmos
3. As all the shots are Unique and Sometimes Requires a totally different approach to deal with, So in this course we are going to work on Various projects. That will Allow you to get familiar with Various kindsof shots.

Course Outcomes: What you will learn.

1. Fundamentals of Nuke as paint prep Artist
2. Nuke's User Interface
3. Denoising Workflow
4. 2d Tracking
5. Roto paint and Rotoscoping
6. Marker Removing Techniques
7. Edges Fixing
8. Preserving the Details
9. Regraining Workflow with Various Industry standard Tools
10. Getting Familiar with Industry Standard and requirement

Guidelines :

Lab Book: The lab book is to be used as a hands-on resource, reference and record of assignment submission and completion by the student. The lab book contains the set of assignments which the student must complete as a part of this course.

Submission:

Your video should be 4–7 Sec in length, plus time for a "credit roll" to show your references. Render should be in Alpha, Color, and with Shapes for final video.

File format. Your video must be submitted in one of the following file formats: .mov, .mv4, mp4, .wmv.

Note that these are rendered movies, that is, files that will play on someone else's computer. Be sure to test your finished product ahead of the deadline.

Assessment:

Continuous assessment of laboratory work is to be done based on overall performance and lab assignments performance of students. Each lab assignment assessment will be assigned grade/marks based on parameters with appropriate weightage. Suggested parameters for overall assessment as well as each lab assignment assessment include- timely completion, performance and creativity.

Operating Environment:

For VFX Compositing

Operating system: Windows 10

Software: Nuke

Suggested List of Assignments:
     Assignment 1.
     Create a clean Plate in Photoshop.

     Assignment 2.
     Create Clean Plate in Nuke

     Assignment 3.
     Match the grain in nuke

     Assignment 4.
     Edge extension and Edge Fixing

Suggested List of Assignments:
     Assignment 1.
     Live paint in nuke

     Assignment 2.
     Paint with 2d tracking

     Assignment 3.
     Color correction

     Assignment 4.
     Match the sequence

Books: Laboratory handbook

Visual Effects (UG Question Paper Pattern)

    b. **Evaluation Criteria:** The evaluation of students will be based on three parameters:-
       • Continuous Internal Evaluation (CIE).
       • Practical / Project Examination

- Semester End Examination.

iii. **For Continuous Internal Evaluation (CIE):** Internal assessment will be as follows:

Theory Examination

Credits :4 Duration : 1Hr/Exam Marks:40			
10 Marks Academic Performance	**10 Marks Spirit of Collaboration**	**10 Marks Quiz Submission**	**10 Marks Class Test**
Attendance	Active participation in class activities.	Submission of end module quizzes on regular basis	Minimum 40% marks required to get marks for class test.

iv. **For Practical/Project Examination:** Internal assessment will be as follows:

Practical Credits :4 Marks:40			Project Credits :6 Marks:60		
10 marks	**20 Marks**	**10 Marks**	**20 marks**	**20 Marks**	**20 Marks**
Attendance	Assignment submission on time	Lab Course Book / Journal	Idea and Originality	**accuracy** and reliability	Presentation

For Semester End Examination: The Duration of the SEE will be as follows:

For Theory Examination

Credits: 4 Marks : 60 Duration : 2.5 hrs		
Q1	**Q2**	**Q3**
10 marks	**20 marks**	**30 marks**
Short answers **(any 5)** Each carry 4 marks)	Descriptive **(any 2)** Each carry 10 marks	Multi choice questions **(any 15)** Each carry 2 marks

For Practical/Project Examination

Practical Credits : 4 Marks:60 Duration : 3.5 Hours						Project Credits :6 Marks :90 Duration : 3.5 Hours	
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Portfolio**	**Project Presentation And Design**
10 marks	10 marks	10 marks	10 marks	10 marks	10 marks	45 marks	45