

**VIVEKANAND COLLEGE, KOLHAPUR.  
(EMPOWERED AUTONOMOUS)**



**NEP  
Syllabus**

*For*  
**2024-25**

**B. Voc Part - II**



**Advanced Diploma in  
Animation & Film Making**

## **STRUCTURE OF SYLLABUS:**

**To be implemented from the academic year 2024-2025**

### **1. Title of the course: BACHELOR OF VOCATION (Animation & Film Making)**

#### **A. INTRODUCTION**

B Voc Animation & Film-Making, also known as Bachelor of Vocation in Animation & Film-Making, is an undergraduate degree program designed to provide students with specialized skills and knowledge in the field of animation. The program combines theoretical learning with practical training to equip students with the necessary tools and techniques to create engaging and visually appealing animated content.

The B Voc Animation & Film-Making program aims to bridge the gap between academia and industry by providing students with industry-relevant skills. It focuses on developing a comprehensive understanding of animation principles, digital media production, 2D and 3D animation, character design, storytelling, motion graphics, and visual effects. Students also learn about industry-standard software and tools used in animation production.

The program incorporates practical training through hands-on projects, workshops, and internships, enabling students to apply their theoretical knowledge in real-world scenarios. This practical exposure helps them develop technical expertise, problem-solving skills, teamwork abilities, and a creative mindset required in the animation industry.

By pursuing a B Voc Animation & Film-Making degree, students gain a solid foundation in animation principles, along with specialized skills in specific areas such as character animation, visual effects, or game development. This prepares them for diverse career opportunities as 2D or 3D animators, character designers, storyboard artists, motion graphics artists, visual effects artists, game artists, or animation directors.

Overall, the B Voc Animation & Film-Making program serves as a comprehensive platform for students to acquire the necessary skills, knowledge, and practical experience needed to excel in the dynamic and ever-evolving field of animation. It empowers individuals to unleash their creativity, express their ideas through animation, and contribute to the growing demand for visually captivating content across various industries.

#### **B. RATIONALE**

This rationale highlights the importance and relevance of the B Voc Animation & Film-Making program, focusing on its industry demand, creative potential, and career opportunities.

##### **1. Industry Demand:**

The animation industry has witnessed tremendous growth due to the increasing demand for animated content in various sectors. Animation is no longer limited to entertainment alone but has expanded into fields like advertising, gaming, education, simulation, and virtual reality. The B Voc Animation & Film-Making program caters to this demand by preparing students for diverse roles such as 2D/3D animators, character designers, storyboard artists, visual effects specialists, and motion graphics artists. The program ensures that graduates are equipped with the necessary technical skills and industry knowledge to meet the evolving demands of the animation industry.



## 2. Creative Potential:

Animation is a powerful medium that offers limitless creative possibilities. The B Voc Animation & Film-Making program encourages students to explore their artistic abilities and develop their unique creative vision. Through courses in drawing, design principles, storytelling, and digital art, students learn to bring their imagination to life. The program also focuses on developing skills in visual aesthetics, color theory, and composition, enabling students to create visually stunning and impactful animations. By nurturing their creativity, the B Voc Animation & Film-Making program prepares students to become skilled animators who can push boundaries and contribute innovative ideas to the industry.

## 3. Technical Skills:

Animation is a blend of artistic expression and technical expertise. The B Voc Animation & Film-Making program provides students with a solid foundation in various technical aspects of animation. Students gain proficiency in industry-standard software and tools used for animation, such as Adobe Creative Suite, Autodesk Maya, and Unity. They learn the principles of 2D and 3D animation, rigging, modeling, texturing, lighting, and rendering. The program also incorporates training in motion capture, virtual reality, and augmented reality, keeping students updated with the latest advancements in the field. The acquisition of these technical skills equips students to handle complex projects and deliver high-quality animation work.

## 4. Industry Collaborations:

To ensure the program's relevance and to bridge the gap between academia and industry, collaborations with animation studios and professionals are crucial. The B Voc Animation & Film-Making program establishes partnerships with industry leaders to provide students with real-world exposure and opportunities. These collaborations offer internships, workshops, guest lectures, and live projects, enabling students to work alongside professionals and gain valuable industry experience. Such interactions not only enhance students' skills but also provide insights into industry practices, workflows, and emerging trends, preparing them for the challenges and expectations of the professional world.

## 5. Career Opportunities:

The animation industry offers a wide range of career opportunities, both nationally and internationally. Graduates of the B Voc Animation & Film-Making program have the potential to pursue careers in animation studios, production houses, advertising agencies, game development companies, film and television industry, e-learning companies, and architectural visualization firms. Additionally, the skills acquired during the program also enable entrepreneurship opportunities, such as starting an animation studio or freelancing as a professional animator. The B Voc Animation & Film-Making program equips students with a versatile skill set, opening doors to various job roles and ensuring long-term career prospects.

## Conclusion:

The Bachelor of Vocation (B Voc) Animation program is a well-rounded and relevant program that addresses the growing demand for skilled animators. By combining artistic creativity with technical proficiency, the program empowers students to become industry-ready professionals. The B Voc Animation & Film-Making program fosters innovation, nurtures talent, and prepares graduates to thrive in the dynamic and exciting field of animation. With its focus on industry





### C. PROGRAM OUTCOMES (POs)

By studying animation & film making students will have a wider horizon in the field of art and will

**PO1. Creative Proficiency:** Graduates will demonstrate a strong foundation in art and animation principles, and possess the skills necessary to create visually appealing and engaging digital compositions across various mediums and platforms.

**PO2. Communication Skills:** Graduates will be proficient in written and verbal communication, particularly in the context of business and professional environments, enabling them to effectively communicate ideas, concepts, and narratives to a diverse audience.

**PO3. Animation Knowledge:** Graduates will have a comprehensive understanding of the history and evolution of animation as an art form, and will be able to apply this knowledge to create compelling and technically proficient animated sequences.

**PO4. Technical Expertise:** Graduates will be proficient in the use of digital tools and software commonly used in the animation industry, including 3D modeling, texturing, lighting, rigging, dynamics, and compositing. They will possess the skills necessary to create high-quality, professional-grade animations.

**PO5. Storytelling and Scriptwriting:** Graduates will have the ability to craft engaging stories and develop compelling scripts for animation projects. They will demonstrate proficiency in storyboarding techniques to effectively visualize and plan their narratives.

**PO6. E-Learning and Social Media Competence:** Graduates will possess the skills to create interactive and engaging e-learning materials, utilizing multimedia and animation techniques to enhance the learning experience. They will also be well-versed in leveraging social media platforms to promote and distribute their work effectively.

### D. PROGRAM SPECIFIC OUTCOMES (PSOs)

**PSO1.** Graduates will demonstrate proficiency in using industry-standard animation software and tools to create high-quality 2D and 3D animations.

**PSO2.** Graduates will be able to apply principles of character design, storytelling, and animation techniques to effectively communicate narratives and emotions through their animated creations.

**PSO3.** Financial and Project Management Skills: Graduates will have a fundamental understanding of financial accounting principles and project management methodologies applicable to the animation industry. They will be able to effectively manage budgets, timelines, and resources to ensure successful project completion.

**PSO4.** Professionalism and Ethical Awareness: Graduates will demonstrate a strong work ethic, professionalism, and ethical awareness in their practice as animators and artists. They will understand the importance of respecting intellectual property rights and adhering to industry standards and best practices.

### 2. Duration:

The duration of the B.Voc. Degree Course will be of **Three years**.

- **B.Voc. Part I - Diploma in Animation & Film Making**
- **B.Voc. Part II - Advanced Diploma in Animation & Film Making**
- **B.Voc. Part III - Bachelor of Vocation in Animation & Film Making**

The final B.Voc degree will be awarded only after completion of three year course. The suggested credits for each of the years are as follows:

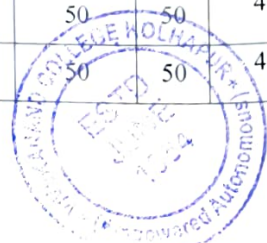


## Department/Subject Specific Core or Major (DSC)

1. **TITLE:** Three Years UG degree in B. Voc. Animation & Film-Making
2. **YEAR OF IMPLEMENTATION:** Academic year 2023-24 onwards
3. **EXAMINATION PATTERN:** Semester wise for Theory and Practical
4. **STRUCTURE OF COURSE:**

### B. Voc. Animation & Film-Making-II-Semester-III & IV

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme		Examination Scheme and Marks				Course Credits
				Hours/week						
				TH	PR	ESE	CIE	PR	Mark s	
Semester-III										
1	DSC-III	DSC24AFM31	Character Design & Props	2	-	40	10	-	50	2
2	DSC-IV	DSC24AFM32	Script Writing & Story Boarding	2	-	40	10	-	50	2
3	MIN-III	MIN24AFM31	E-Learning & social media	2	-	40	10	-	50	2
4	AEC-III	AEC24ENG31	English For Business Communication-III	2	-	40	10	-	50	2
5	VEC-II	VEC24ENV31	Environmental Studies-I (Online)	2	-	50	-	-	50	2
6	VSC-PR -III	VSC24AFM39	Video Editing	-	4			50	50	4
7	SEC-PR -II	SEC24AFM39	Rotoscoping	-	4	-	-	50	50	4
8	DSC-PR-V	DSC24PRA39	DSC AFM PR-31	-	4	-	-	50	50	4
9	DSC-PR-VI	DSC24PRB39	DSC AFM PR-32	-	4	-	-	50	50	4
10	MIN-PR-III	MIN24PRA39	MIN AFM PR-31	-	4	-	-	50	50	4
	Total (Semester-III)			10	20	220	30	250	500	30
Semester-IV										
1	DSC-V	DSC24AFM41	3D Modelling	2	-	40	10	-	50	2
2	DSC-VI	DSC24AFM42	3D Lighting	2	-	40	10	-	50	2
3	MIN-IV	MIN24AFM41	2D Animation - I	2	-	40	10	-	50	2
4	AEC-IV	AEC24ENG41	English For Business Communication-IV	2		40	10	-	50	2
5	VEC-III	VEC24ENV41	Environmental Studies-II (Online)	2	-	50	-	-	50	2
6	VSC-PR-IV	VSC24AFM49	3D Texturing	-	4			50	50	4
7	SEC-PR -III	SEC24AFM49	Motion Graphics	-	4	-	-	50	50	4
8	DSC-PR-VII	DSC24PRA49	DSC AFM PR-41	-	4	-	-	50	50	4



9	DSC-PR-VIII	DSC24PRB49	DSC AFM PR-42	-	4	-	-	50	50	4
10	MIN-PR-IV	MIN24PRA49	MIN AFM PR-41	-	4	-	-	50	50	4
	<b>Total (Semester-IV)</b>			<b>10</b>	<b>20</b>	<b>220</b>	<b>30</b>	<b>250</b>	<b>500</b>	<b>30</b>
	<b>Cumulative Total (2nd Year)</b>			<b>20</b>	<b>40</b>	<b>440</b>	<b>60</b>	<b>500</b>	<b>1000</b>	<b>60</b>

Abbr. TH-Theory, PR-Practical, ESE- End Semester Examination, CIE-Continuous Internal Examination

Note: Minimum passing for 40 marks Theory paper = 16 marks

Minimum passing for 10 marks Internal evaluation = 04 marks

Minimum passing for 50 marks Practical = 18 marks

Separate passing for every head- ESE, CIE and Practical

### 3. Eligibility:

The eligibility condition for admission to B.Voc. programme shall be 10+2 or equivalent, in any stream from any recognized board or university.

### 4. Medium of Instruction:

The medium of instruction of the course will be **Marathi / English**

### 5. Pattern: Choice based Credit System (CBCS) Semester Pattern.

### 6. Examination:

#### A. Scheme of examination:

- The semester examination will be conducted at the end of each term (both theory and practical examination)
- Theory paper will be of 50 marks each. The practical examination will be of 50 marks and industrial practical training/project work is of 50 marks.
- Question papers will be set in the view of the entire syllabus and preferably covering each unit of the syllabus.

#### B. Nature of question paper:

There will be in all **Three** questions in each paper of which all should be solved.

General nature of the question paper will be:

Question Number	Type		Marks
Q.1	Multiple Choice Questions	No internal options.	8 marks
Q.2	Short notes	Any four out of six	16 marks
Q.3	Long answer	Any two out of three	16 marks

#### C. Standard of Passing:

To pass the examination a candidate must obtain at least 35% i.e 16 marks out of 40 for theory examination and 4 marks out of 10 in internal assessment of each paper. Total minimum 18 marks out of 50 for each paper should be obtained.

For practical examination minimum 50% marks should be obtained.





The result will be declared on the basis of theory and practical examination for each semester during the course.

**D. External Students:** Not applicable as this is a practical oriented course.

**7. University Term:** As per academic calendar of the university.

**For the first year i.e. Diploma in Animation & Film Making practical examination and theory paper assessment will be done at college level.**

**8. List of equipment and instruments:**

1. Computer Machines
2. Projector
3. Internet Connectivity
4. Smart Board
5. CCTV Camera for Animation Laboratory.

**9. Laboratory Safety Equipment:**

**Part I: Personal Precautions:**

1. Except in emergency, **over-hurried activities** are forbidden.
2. **Eating, Drinking and Smoking** in the laboratories is strictly forbidden.
3. **Mobile phones, external hard drives, pen drives are not allowed.**

**Part II: Use of Safety and Emergency Equipment:**

1. First aid Kits
2. Fire extinguishers (dry chemical and carbon dioxide extinguishers)
3. Management of Local exhaust systems.
4. Sign in register if using instruments.

**10. MEMORANDUM OF UNDERSTANDING (MOU):**

The purpose of MOUs is to clearly identify the roles and responsibilities of each party (i.e. college and industry partner) as they relate to the implementation of the **B.Voc. Program in Animation & Film Making** at the college.

It is recommended to sign at least **FIVE MOUs** with the industry partners in the related field.



### SEMESTER – III

#### Paper-I- DSC24AFM31- Character Design & Props

50 Hours

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--/--

#### Course Outcomes (COs):

Course Outcomes(COs): Upon completion of this course, students will be able to		
CO1	Create unique and visually appealing character designs and props that effectively communicate personality, story, and function.	
CO2	Apply principles of anatomy, proportion, and stylization to develop believable and expressive character designs.	
CO3	Utilize research and reference materials to inform and enhance the design process, ensuring authenticity and creativity.	
CO4	Demonstrate proficiency in translating character designs and props into 3D models, considering technical and aesthetic aspects.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)  
1=Low correlation, 2=Medium correlation, 3=High correlation





CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	2	0	1	0	1	1	2	0	1	3
CO2	3	2	0	2	0	0	2	2	0	3
CO3	2	0	2	0	1	0	2	0	2	3
CO4	1	1	0	1	0	3	2	1	0	2

### Course Content:

#### Unit-1

Principles of Character Design: This topic introduces the foundational principles of character design, including shape language, silhouette, proportion, and anatomy. It covers how to create visually appealing and expressive characters that effectively communicate personality and emotions.

#### Unit-2

Character Development and Storytelling: This topic explores the process of developing characters that fit within a specific narrative context. It covers techniques for establishing character backstories, motivations, and relationships, and how to visually represent these aspects through design choices.

#### Unit-3

Props and Environment Design: This topic focuses on designing and creating props and environments that complement the characters and enhance the storytelling. It covers techniques for creating believable and visually engaging props, as well as designing environments that reflect the mood, tone, and narrative of the animated production.

#### Unit-4

Colour Theory and Styling: This topic delves into the use of colour in character and prop design. It covers colour theory principles, colour psychology, and the application of colour to enhance storytelling and evoke specific emotions or moods. It also explores different stylistic approaches, such as realistic, stylized, and graphic styles.

#### Unit-5

Concept Development and Iteration: This topic focuses on the iterative process of character and prop design. It covers techniques for generating ideas, creating rough sketches, refining designs through multiple iterations, and receiving feedback to improve the final result.

### References:

- 1."The Skilful Huntsman: Visual Development of a Grimm Tale at Art Centre College of Design" by Khang Le, Mike Yamada, and Felix Yoon
- 2."Creating Characters with Personality" by Tom Bancroft
- 3."Colour and Light: A Guide for the Realist Painter" by James Gurney
- 4."How to Draw and Paint Fantasy Architecture" by Rob Alexander
- 5."Character Animation Crash Course!" by Eric Goldberg



## Paper –II: DSC24AFM32 - Script Writing & Story Boarding

50 Hours

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

### Course Outcomes (COs):

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Develop a working definition of drama that notes its divergence from other narrative forms	
CO2	Understand the techniques, formats and style of story breakdowns, outlines, treatments, and screenplays.	
CO3	Write screenplays for short film, feature film and television formats.	
CO4	Convey story ideas both orally and in writing with clarity, conviction and style.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)  
1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	0	3	1	0	1	2	2
CO2	0	3	0	2	3	2	2	0	2	1
CO3	2	0	2	0	2	1	1	2	0	1
CO4	1	0	1	1	3	2	2	1	1	2



## **Course Content:**

### **Unit-1**

Basics of story: Exploring ideas, Concept, Plot, Structure, Character Theme, Conflicts, Storytelling outline, Building a character, delivering a precise message through the story, Story pacing, Animation story for Children, Adults, Basics of story and Basics of Script writing Action, Scene Headings, Character Name, Screenplay, Titles and End Credits

### **Unit-2**

Scriptwriting terminology: Action, Angle, BG close up, Exterior, Fade in fade out, Pan, Parenthetical, POV, Scene Heading, Slug line, SFX, Sotto voce, Track with, Voice over, Character name, Cast List, Dialogue, Script Length, Action Description, Extension, Dual Column Dialogue, Act numbers, Scene Numbers, short lines, dialogue paragraphs, Character Arc. 12 Hours

### **Unit-3**

Story boarding: Introduction to storyboards, Steps of creating a storyboard, Beat board, Storyboarding overview, Contents, Pose, Scenes, Camera, colour scheme, Sound, Lighting, Special fx, Applications, Focus the story and the timing in several key frames, Animatics-Lica reel.

### **Unit-4**

Techniques to produce fast script, Advantage of script writing with softwares. Script writing for 2D Films, Animations, writing for new media – internet and mobile media.

### **Unit-5**

Intellectual property and copyrights Public domain material, Protecting the idea, Proof of ownership, Confidentiality agreement, Piracy, Animation Industry in India, Case Study.

## **References:**

1. Christy Marx, *Writing for Animation Comics & Games*, Elsevier India Pvt. Ltd, 2007.
2. Stephanie Torta, *Storyboarding: Turning Script to Motion*, Mercury Learning & Information, 2011.
3. Prajapati A K, *Computer Graphics & Animation*, Pragati Prakashan, 2005.
4. Harold Whitaker / John Halas, *Timing for Animation*, Focal Press, 2009.





### Paper –III: MIN24AFM31- E-Learning & social media

50 Hours

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--/--

#### Course Outcomes (COs):

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Design and develop interactive and engaging e-learning materials using multimedia elements and animation techniques.	
CO2	Utilize social media platforms effectively to promote and distribute animated content, building an online presence and engaging with audiences.	
CO3	Apply instructional design principles to create effective learning experiences through the integration of animation and multimedia elements.	
CO4	Stay updated on emerging trends in e-learning and social media to leverage new technologies and opportunities for animated content creation.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)  
1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	0	2	1	2	0	1	2	3		
CO2	2	1	0	1	2	0	3	1		
CO3	0	0	2	0	0	1	0	2		



CO4	2	0	0	1	1	0	1	3	2	1
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## Course Content:

### Unit-1

New Media, Evolution of Digital Communication, Personal Learning Networks, Digital Economics, online news, online political communication, Access and the Digital Divide.

### Unit-2

Social Media: Platforms, privacy, culture, identity and reputation, social networking and social capital, interacting visually, technological convergence and rise of mobile technology, measuring, monitoring and analysing social media, social media activism.

### Unit-3

Layout techniques; showing how design elements combine to create an overall look to the publication (Magazine, newspaper, leaflet, poster, pamphlet etc).

### Unit-4

Cyber Media, Cyber Journalism, Comparison of cyber media with Print, TV & Radio. Online as a publishing medium, Online as an advertising tool, Impact of Web Journalism on reading habits of people and media industry, Analysis of important Indian newsbased websites, Impact of globalization on Web Journalism, Cyber Laws and debates.

### Unit-5

Concept of e-governance & e-learning, finding information on the World Wide Web, Writing for blogs.

## Reference

1. Weinmann, E. & Lourekas, P, *Quark Express 5 for windows*, 2018.
2. Adobe Page Maker 7.0 *Classroom in a book*, BPB Publication, 2002.
3. Altman Rick, *Illustrator 10 Bible*. IDG Books worldwide, 1999.
4. Alur Deepak & Malis Dan, *Mastering Corel Draw 7*, 2005.
5. Fordney Marilyn Takahashi & Deihl Marcy Otis, *Computer Graphics - Principles And Practices*, 2018
6. Krishnan.N. & Saravanan.N, *Introduction To Computer Graphics*, 2018.



**Paper –III : VEC24AFM39 – Video Editing****50 Hours**

<b>Course Type: Theory / Practical</b>	Theory
<b>Required/Elective</b>	Required
<b>Prerequisite</b>	-
<b>Teaching Scheme (Lecture/Practical/Tutorial/Drawing)</b>	02/02/00/00 Hours
<b>Total contact Hours (Lecture/Practical/Tutorial/Drawing)</b>	50/00/00/00 Hours
<b>Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical</b>	--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs): Upon completion of this course, students will be able to		
CO1	<b>Apply</b> fundamental video editing techniques (cutting, trimming, transitions, and sequencing) using industry-standard editing software.	
CO2	<b>Demonstrate</b> skills in integrating audio, visual effects, titles, and color correction to enhance video quality.	
CO3	<b>Analyze and evaluate</b> different editing styles to effectively communicate narrative, mood, and message in video projects..	
CO4	<b>Create and present</b> professional-quality edited videos suitable for academic, commercial, and creative purposes.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)  
1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	1	3	0	3	2	1	1	1	2	3
CO2	3	1	2	1	3	2	1	2	2	2
CO3	2	3	3	2	2	1	2	2	0	3
CO4	3	2	1	2	0	3	0	3		2

**Course Content:**



## Unit-1

Introduction to Video Editing

What is Video Editing?

Stages of Video Production (Pre-production, Production, Post-production)

Overview of Editing Software (Adobe Premiere Pro, Final Cut Pro, DaVinci Resolve, etc.)

Understanding the Interface & Basic Tools

Video File Formats & Codecs

## Unit-2

Importing & Organizing Footage

Working with the Timeline – Cut, Trim, Split

Applying Transitions (Cut, Fade, Dissolve, Wipe)

Basics of Audio Editing – Sync, Volume Adjustment, Background Music

Adding Titles, Text & Captions

Model symmetry, Drawing a polygon, Quads, Tris and nGons,  
Low Poly/High Poly modelling, Exporting the models from scene to scene.

## Unit-3

Advanced Editing Skills

Multi-Camera Editing

Color Correction & Color Grading

Motion Effects & Keyframing

Green Screen / Chroma Key Editing

Audio Mixing & Noise Reduction

## Unit-4

Creative Storytelling

Continuity Editing & Maintaining Flow

Pacing & Rhythm in Editing

Visual Storytelling & Narrative Techniques

Creating Montages

Using Effects, Filters, and LUTs for Mood/Style

## Unit-5

Exporting & Project Management

Export Settings (Resolution, Bitrate, Formats)

Preparing Videos for YouTube, Instagram, TV & Film

Project Archiving & File Management

Common Mistakes & Troubleshooting

Final Project / Practical Assignment

## References:

1. In the Blink of an Eye – Walter Murch  
(Classic text on the philosophy and art of film editing)
2. The Technique of Film Editing – Karel Reisz & Gavin Millar  
(Covers fundamentals and history of editing techniques)
3. Adobe Premiere Pro Classroom in a Book (2024 Release) – Maxim Jago  
(Step-by-step guide for Adobe Premiere Pro learners)
4. Film Editing: Great Cuts Every Filmmaker and Movie Lover Must Know – Gael Chandler  
(Explains editing styles with practical examples)
5. Grammar of the Edit – Roy Thompson & Christopher Bowen  
(A practical manual for beginner and intermediate editors)



## Paper –II: SEC24AFM39 - Rotoscoping

50 Hours

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

### Course Outcomes (COs):

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Understand the principles of lighting and its role in creating mood, atmosphere, and realism in 3D scenes.	
CO2	Apply lighting techniques and tools to effectively illuminate 3D models, characters, and environments.	
CO3	Create convincing and visually appealing lighting setups that enhance the overall aesthetic and narrative of 3D scenes.	
CO4	Utilize advanced rendering techniques and software to achieve realistic and high-quality lighting effects in 3D projects.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	1	3	0	3	2	1	1	1	1	3
CO2	3	2	1	2	3	2	1	2	2	1
CO3	2	3	3	2	2	2	2	0	0	2
CO4	3	2	2	3	0	3	0	3	0	2

### Course Content:

#### Unit-1



Introduction to Rotoscoping  
History of Rotoscoping (Traditional to Digital)  
Role of Rotoscoping in VFX & Compositing  
Understanding Layers, Mattes & Masks  
Introduction to Rotoscoping Software (After Effects, Nuke, Silhouette, Mocha Pro)

## **Unit-2**

Tools & Techniques  
Types of Mattes (Garbage Matte, Holdout Matte, Alpha Matte)  
Rotoscoping Tools (Bezier, B-Spline, X-Spline, Pen Tool)  
Tracking for Rotoscoping (Planar & Point Tracking)  
Rotoscoping Workflow for Live Action Footage

## **Unit-3**

Practical Rotoscoping  
Isolating Characters / Objects from Background  
Hair, Glass, Motion Blur, and Semi-Transparent Objects  
Edge Refinement Techniques  
Working with Green Screen & Blue Screen Footage  
Combining Rotoscoping with Keying

## **Unit-4**

Advanced Rotoscoping  
Complex Motion Shots (Fast Action, Camera Movement)  
Multi-layer Rotoscoping  
Stereoscopic Rotoscoping (3D Roto for Stereo Films)  
Optimizing Masks for Efficiency  
Roto for Compositing (Integration with CGI / VFX Elements)

## **Unit-5**

Output & Project Management  
Rendering Mattes and Alpha Channels  
Export Settings (for Nuke, After Effects, Fusion, etc.)  
File Management & Naming Conventions  
Quality Control & Review Process  
Final Practical Project – Creating a Production-Ready Roto

## **References:**

1. The Art and Science of Digital Compositing – Ron Brinkmann
2. Digital Compositing for Film and Video – Steve Wright
3. Compositing Visual Effects: Essentials for the Aspiring Artist – Steve Wright
4. Nuke 101: Professional Compositing and Visual Effects – Ron Ganbar
5. The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures – Jeffrey A. Okun & Susan Zwerman





## Paper –V- DSC24PRA39 –DSC AFM PR-31

50 Hours

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

### Course Outcomes (COs):

Course Outcomes(COs): Upon completion of this course, students will be able to		
CO1	Create unique and visually appealing character designs and props that effectively communicate personality, story, and function.	
CO2	Apply principles of anatomy, proportion, and stylization to develop believable and expressive character designs.	
CO3	Utilize research and reference materials to inform and enhance the design process, ensuring authenticity and creativity.	
CO4	Demonstrate proficiency in translating character designs and props into 3D models, considering technical and aesthetic aspects.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	2	0	1	0	1	1	2	0	1	3
CO2	3	2	0	2	0	0	2	2	0	3
CO3	2	0	2	0	1	0	2	0	0	2
CO4	1	1	0	1	0	3	2	1	0	2

Course Content:



## **Unit-1**

**Principles of Character Design:** This topic introduces the foundational principles of character design, including shape language, silhouette, proportion, and anatomy. It covers how to create visually appealing and expressive characters that effectively communicate personality and emotions.

## **Unit-2**

**Character Development and Storytelling:** This topic explores the process of developing characters that fit within a specific narrative context. It covers techniques for establishing character backstories, motivations, and relationships, and how to visually represent these aspects through design choices.

## **Unit-3**

**Props and Environment Design:** This topic focuses on designing and creating props and environments that complement the characters and enhance the storytelling. It covers techniques for creating believable and visually engaging props, as well as designing environments that reflect the mood, tone, and narrative of the animated production.

## **Unit-4**

**Colour Theory and Styling:** This topic delves into the use of colour in character and prop design. It covers colour theory principles, colour psychology, and the application of colour to enhance storytelling and evoke specific emotions or moods. It also explores different stylistic approaches, such as realistic, stylized, and graphic styles.

## **Unit-5**

**Concept Development and Iteration:** This topic focuses on the iterative process of character and prop design. It covers techniques for generating ideas, creating rough sketches, refining designs through multiple iterations, and receiving feedback to improve the final result.

## **References:**

1. "The Skillful Huntsman: Visual Development of a Grimm Tale at Art Centre College of Design" by Khang Le, Mike Yamada, and Felix Yoon
2. "Creating Characters with Personality" by Tom Bancroft
3. "Colour and Light: A Guide for the Realist Painter" by James Gurney
4. "How to Draw and Paint Fantasy Architecture" by Rob Alexander
5. "Character Animation Crash Course!" by Eric Goldberg



**Paper –V- DSC24PRB39 –DSC AFM PR-32****50 Hours**

<b>Course Type: Theory / Practical</b>	Theory
<b>Required/Elective</b>	Required
<b>Prerequisite</b>	-
<b>Teaching Scheme (Lecture/Practical/Tutorial/Drawing)</b>	02/02/00/00 Hours
<b>Total contact Hours (Lecture/Practical/Tutorial/Drawing)</b>	50/00/00/00 Hours
<b>Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical</b>	--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs): Upon completion of this course, students will be able to		
CO1	Design and develop interactive and engaging e-learning materials using multimedia elements and animation techniques.	
CO2	Utilize social media platforms effectively to promote and distribute animated content, building an online presence and engaging with audiences.	
CO3	Apply instructional design principles to create effective learning experiences through the integration of animation and multimedia elements.	
CO4	Stay updated on emerging trends in e-learning and social media to leverage new technologies and opportunities for animated content creation.	

**Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)**

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	0	2	1	2	0	1	2	3	0	2
CO2	2	1	0	1	2	0	3	1	2	3
CO3	0	0	2	0	0	1	0	2	0	3
CO4	2	0	0	1	1	0	1	3	2	1

**Course Content:**



### **Unit-1**

New Media, Evolution of Digital Communication, Personal Learning Networks, Digital Economics, online news, online political communication, Access and the Digital Divide.

### **Unit-2**

Social Media: Platforms, privacy, culture, identity and reputation, social networking and social capital, interacting visually, technological convergence and rise of mobile technology, measuring, monitoring and analysing social media, social media activism.

### **Unit-3**

Layout techniques; showing how design elements combine to create an overall look to the publication (Magazine, newspaper, leaflet, poster, pamphlet etc).

### **Unit-4**

Cyber Media, Cyber Journalism, Comparison of cyber media with Print, TV & Radio. Online as a publishing medium, Online as an advertising tool, Impact of Web Journalism on reading habits of people and media industry, Analysis of important Indian newsbased websites, Impact of globalization on Web Journalism, Cyber Laws and debates.

### **Unit-5**

Concept of e-governance & e-learning, finding information on the World Wide Web, Writing for blogs.

### **Reference**

3. Weinmann, E. & Lourekas, P, *Quark Express 5 for windows*, 2018.
4. Adobe Page Maker 7.0 *Classroom in a book*, BPB Publication, 2002. 3. Altman Rick, *Illustrator 10 Bible*. IDG Books worldwide, 1999.
7. Alur Deepak & Malis Dan, *Mastering Corel Draw 7*, 2005.
8. Fordney Marilyn Takahashi & Deihl Marcy Otis, *Computer Graphics - Principles And Practices*, 2018
9. Krishnan.N. & Saravanan.N, *Introduction To Computer Graphics*, 2018.



### Paper –III- MIN24PRA39 –MIN AFM PR-31

**50 Hours**

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

#### Course Outcomes (COs):

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Design and develop interactive and engaging e-learning materials using multimedia elements and animation techniques.	
CO2	Utilize social media platforms effectively to promote and distribute animated content, building an online presence and engaging with audiences.	
CO3	Apply instructional design principles to create effective learning experiences through the integration of animation and multimedia elements.	
CO4	Stay updated on emerging trends in e-learning and social media to leverage new technologies and opportunities for animated content creation.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	0	2	1	2	0	1	2	3	0	2
CO2	2	1	0	1	2	0	3	1	2	3
CO3	0	0	2	0	0	1	0	2	0	3
CO4	2	0	0	1	1	0	1	3	2	1

#### Course Content:

##### Unit-1

New Media, Evolution of Digital Communication, Personal Learning Networks, Digital Economics, online news, online political communication, Access and the Digital Divide.



## Unit-2

Social Media: Platforms, privacy, culture, identity and reputation, social networking and social capital, interacting visually, technological convergence and rise of mobile technology, measuring, monitoring and analysing social media, social media activism.

## Unit-3

Layout techniques; showing how design elements combine to create an overall look to the publication (Magazine, newspaper, leaflet, poster, pamphlet etc).

## Unit-4

Cyber Media, Cyber Journalism, Comparison of cyber media with Print, TV & Radio. Online as a publishing medium, Online as an advertising tool, Impact of Web Journalism on reading habits of people and media industry, Analysis of important Indian newsbased websites, Impact of globalization on Web Journalism, Cyber Laws and debates.

## Unit-5

Concept of e-governance & e-learning, finding information on the World Wide Web, Writing for blogs.

## Reference

5. Weinmann, E. & Lourekas, P, *Quark Express 5 for windows*, 2018.
6. Adobe Page Maker 7.0 *Classroom in a book*, BPB Publication, 2002.
3. Altman Rick, *Illustrator 10 Bible*. IDG Books worldwide, 1999.
10. Alur Deepak & Malis Dan, *Mastering Corel Draw 7*, 2005.
11. Fordney Marilyn Takahashi & Deihl Marcy Otis, *Computer Graphics - Principles And Practices*, 2018
12. Krishnan.N. & Saravanan.N, *Introduction To Computer Graphics*, 2018.





## Semester- IV

**Paper –V- DSC24AFM41 –3D Modelling**

**50 Hours**

<b>Course Type: Theory / Practical</b>	Theory
<b>Required/Elective</b>	Required
<b>Prerequisite</b>	-
<b>Teaching Scheme (Lecture/Practical/Tutorial/Drawing)</b>	02/02/00/00 Hours
<b>Total contact Hours (Lecture/Practical/Tutorial/Drawing)</b>	50/00/00/00 Hours
<b>Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical</b>	--/--/--

### Course Outcomes (COs):

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Explain the fundamentals of 3D modelling and its applications.	
CO2	Apply modelling tools to create basic and complex 3D objects.	
CO3	Analyze different modelling techniques such as polygonal, spline, and NURBS.	
CO4	Demonstrate professional-quality 3D models suitable for animation projects.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	3	-	-	2	-	-	3	-	-	2
CO2	3	-	-	3	-	-	3	2	-	2
CO3	2	-	-	2	-	-	2	2	-	2
CO4	3	-	-	3	-	-	3	3	-	2

### Unit 1: Introduction to 3D Modelling

Basics of 3D Computer Graphics

Difference between 2D & 3D

Introduction to 3D Software (Maya, Blender, 3ds Max, etc.)

Coordinate Systems (X, Y, Z)



Basic Geometry: Vertex, Edge, Face, Polygon

**Unit 2: Modelling Techniques**

Primitive Modelling (Cubes, Spheres, Cylinders)

Polygonal Modelling (Extrude, Bevel, Bridge, Merge)

NURBS Modelling Basics

Subdivision Surfaces

Working with Modifiers

**Unit 3: Advanced 3D Modelling**

Organic Modelling (Characters, Creatures)

Hard Surface Modelling (Props, Vehicles, Architecture)

Sculpting Techniques (High-Poly & Digital Sculpting)

Retopology (Optimizing Mesh for Animation/Game)

UV Mapping & Texturing Basics

**Unit 4: Lighting, Materials & Rendering**

Material & Shader Basics

Applying Textures (Procedural & Image-based)

Lighting Techniques (3-point Lighting, HDRI)

Rendering Engines (Arnold, Cycles, V-Ray, etc.)

Output Settings & Render Optimization

**Unit 5: Project & Portfolio Development**

Concept to 3D Model Workflow

Creating Game Assets vs Animation Assets

Environment Modelling & Scene Building

Final Project (Character/Prop/Environment)

Preparing a Professional Portfolio

**Reference Books (English)**

1. "Digital Modeling" – William Vaughan  
*(Excellent for beginners to advanced 3D modeling techniques.)*
2. "Introducing Autodesk Maya" – Dariush Derakhshani  
*(Covers Maya basics & professional workflow.)*
3. "Blender 3D: Noob to Pro" – Wikibook Project  
*(Open-source reference for Blender learners.)*
4. "3D Modeling for Games" – Andrew Gahan  
*(Focus on game-ready asset creation and optimization.)*
5. "Polygonal Modeling: Basic and Advanced Techniques" – Mario Russo  
*(Covers detailed polygon modeling methods with practical examples.)*



**Paper –VI- DSC24AFM42 –3D Lighting****50 Hours**

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Describe the role of lighting in 3D environments.	
CO2	Apply different lighting techniques to enhance visual storytelling.	
CO3	Analyze the impact of shadows, highlights, and reflections in 3D scenes.	
CO4	Demonstrate professional lighting setups for 3D animations.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	3	-	-	2	-	-	3	-	-	2
CO2	3	-	-	3	-	-	3	2	-	2
CO3	2	-	-	2	-	-	2	2	-	2
CO4	3	-	-	3	-	-	3	3	-	2

**Unit 1: Introduction to 3D Lighting**

Importance of Lighting in 3D

Basic Lighting Concepts (Intensity, Shadows, Contrast)

Types of Lights (Point, Spot, Directional, Area, Ambient)

Light Properties and Parameters

Introduction to 3D Software Lighting Tools (Maya, Blender, 3ds Max, etc.)





**Unit 2: Lighting Techniques & Principles**  
Three-Point Lighting (Key, Fill, Back Light)  
Natural vs. Artificial Lighting in 3D  
Indoor & Outdoor Lighting  
Global Illumination & Indirect Lighting  
HDRI Lighting Basics

**Unit 3: Shading & Texturing with Lighting**  
Interaction of Light with Surfaces  
Materials & Shaders (Diffuse, Specular, Reflection, Refraction)  
Subsurface Scattering (SSS)  
Realism through Lighting & Shading  
Case Studies of Different Surface Types

**Unit 4: Advanced Lighting & Rendering**  
Photorealistic Lighting Techniques  
Ray Tracing & Path Tracing  
Lighting for Animation & VFX  
Depth of Field & Atmospheric Effects  
Render Settings & Optimization

**Unit 5: Creative Lighting & Project Work**  
Lighting for Mood, Emotion & Storytelling  
Cinematic Lighting in 3D Scenes  
Lighting for Product Visualization, Games, Films  
Common Lighting Mistakes & Solutions  
Final Lighting Project (Scene Setup, Rendering & Presentation)

#### **Reference Books**

Lighting for Animation: The Art of Visual Storytelling – Jasmine Katatikarn & Michael Tanzillo  
Digital Lighting and Rendering – Jeremy Birn  
Advanced Lighting and Materials with Shaders – Kelly Dempski  
3D Lighting: History, Concepts and Techniques – Arnold Gallardo  
Cinematography: Theory and Practice – Blain Brown (for lighting principles useful in 3D)



**Paper –IV- MIN24AFM41 –2D Animation-I****50 Hours**

<b>Course Type: Theory / Practical</b>	Theory
<b>Required/Elective</b>	Required
<b>Prerequisite</b>	-
<b>Teaching Scheme (Lecture/Practical/Tutorial/Drawing)</b>	02/02/00/00 Hours
<b>Total contact Hours (Lecture/Practical/Tutorial/Drawing)</b>	50/00/00/00 Hours
<b>Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical</b>	--/--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs): Upon completion of this course, students will be able to		
CO1	Explain the principles of 2D animation such as timing, spacing, and squash & stretch.	
CO2	Apply digital tools to create frame-by-frame 2D animations.	
CO3	Analyze character movements and expressions in 2D animation.	
CO4	Demonstrate short 2D animation sequences using industry-standard software.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	3	-	-	2	-	-	3	2	-	2
CO2	3	-	-	3	-	-	3	3	-	2
CO3	2	-	2	-	-	-	-	3	-	2
CO4	3	-	-	3	-	-	3	3	-	2

**Unit 1: Introduction to 2D Animation**

History &amp; Evolution of Animation

Principles of Animation (12 Principles – Squash &amp; Stretch, Anticipation, Timing, etc.)

Types of 2D Animation (Traditional, Digital, Stop-Motion)

Animation Production Pipeline



## **Unit 2: Drawing Basics for Animation**

Basics of Drawing & Sketching

Character Design Fundamentals

Anatomy, Proportions, and Expressions

Background & Layout Design

Perspective Drawing in Animation

## **Unit 3: Animation Techniques**

Frame-by-Frame Animation

Keyframes, In-betweens, & Timing Charts

Walk Cycle & Run Cycle Animation

Lip Sync & Facial Expressions

Gesture Animation & Posing

## **Unit 4: Digital Tools for 2D Animation**

Introduction to 2D Animation Software (Adobe Animate)

Using Layers, Symbols, and Motion Tweens

Camera Movements in 2D Animation

Importing & Exporting Assets

File Formats & Rendering

## **Unit 5: Project & Practical Applications**

Storyboarding & Animatics

Short 2D Animation Project (Concept to Final Output)

Editing & Compositing Basics

Adding Sound & Music to Animation

Final Showreel Preparation

## **Reference Books**

1. The Animator's Survival Kit" – Richard Williams
2. Animation: The Mechanics of Motion" – Chris Webster
3. Timing for Animation" – Harold Whitaker & John Halas
4. Cartoon Animation" – Preston Blair
5. The Illusion of Life: Disney Animation" – Frank Thomas & Ollie Johnston
6. Character Animation Crash Course!" – Eric Goldberg





**Paper –V- DSC24AFM41 –3D Texturing****50 Hours**

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Understand the fundamentals of 3D texturing and its role in the 3D production pipeline.	
CO2	Apply different texturing techniques such as UV mapping, procedural textures, and material creation.	
CO3	Use industry-standard software (e.g., Substance Painter, Maya, Blender, Photoshop) for creating realistic textures.	
CO4	Develop and present fully textured 3D models suitable for games, animation, and VFX production.	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	3	-	-	2	-	-	3	-	-	2
CO2	3	-	-	3	-	-	3	2	-	2
CO3	2	-	-	2	-	-	2	2	-	2
CO4	3	-	-	3	-	-	3	3	-	2

**Unit 1: Introduction to 3D Texturing**

Role of Texturing in 3D Production

Types of Textures (Diffuse, Normal, Specular, Roughness, Displacement, etc.)

Introduction to PBR (Physically Based Rendering) Workflow

Overview of Texturing Software



## **Unit 2: UV Mapping & Unwrapping**

Concept of UV Coordinates

Techniques of UV Unwrapping

Layout Optimization

Avoiding Stretching & Seams

Packing UVs Efficiently

## **Unit 3: Procedural & Hand-Painted Textures**

Procedural Texturing Basics

Hand-Painted Texture Techniques

Using Photoshop/Procreate for Texture Painting

Creating Stylized vs. Realistic Textures

Material Nodes and Shaders

## **Unit 4: Advanced Texturing Techniques**

Normal Maps, Bump Maps, Displacement Maps

Ambient Occlusion & Cavity Maps

Smart Materials & Smart Masks (Substance Painter)

Baking High-Poly Details into Low-Poly Mesh

Texture Optimization for Games and Film

## **Unit 5: Rendering & Project Development**

Applying Textures in Game Engines (Unity/Unreal)

Texture Lighting Interaction

Exporting Texture Maps (Resolution, File Types)

Final Project: Creating and Presenting a Fully Textured 3D Asset

Portfolio Development

## **Reference Books (English)**

1. Digital Texturing & Painting – Owen Demers
2. The PBR Guide: Physically Based Rendering in Theory and Practice – Wes McDermott (Allegorithmic)
3. 3D Game Textures: Create Professional Game Art Using Photoshop – Luke Ahearn
4. Texturing and Modeling: A Procedural Approach – David S. Ebert et al.
5. The Art of Texturing: 3D Modeling, Materials, and Mapping – Various Authors



**Paper –III - DSC24AFM41 – Motion Graphics****50 Hours**

Course Type: Theory / Practical	Theory
Required/Elective	Required
Prerequisite	-
Teaching Scheme (Lecture/Practical/Tutorial/Drawing)	02/02/00/00 Hours
Total contact Hours (Lecture/Practical/Tutorial/Drawing)	50/00/00/00 Hours
Evaluation Scheme: Theory Theory Paper /Term Work/Oral/Practical	--/--/--

**Course Outcomes (COs):**

Course Outcomes(COs):		
Upon completion of this course, students will be able to		
CO1	Understand the principles, tools, and techniques of motion graphics for visual communication.	
CO2	Create dynamic animations using text, images, and graphic elements with industry-standard software.	
CO3	Apply design aesthetics, timing, and storytelling concepts to motion graphics projects.	
CO4	Develop professional-quality motion graphic content for media platforms (films, advertisements, social media).	

Correlation matrix of Course outcomes with Programmed outcomes (CO-PO)

1=Low correlation, 2=Medium correlation, 3=High correlation

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4
CO1	3	-	-	2	-	-	3	-	-	2
CO2	3	-	-	3	-	-	3	2	-	2
CO3	2	-	-	2	-	-	2	2	-	2
CO4	3	-	-	3	-	-	3	3	-	2

**Unit 1: Introduction to Motion Graphics**

Definition &amp; Scope of Motion Graphics

Difference between Animation, VFX, and Motion Graphics

Role of Motion Graphics in Media (Film, TV, Advertising, Social Media)

Overview of Software (Adobe After Effects, Blender, Cinema 4D, etc.)

**Unit 2: Design Principles & Fundamentals**

Elements of Design – Line, Shape, Color, Texture, Typography



Principles of Animation – Squash & Stretch, Timing, Anticipation, etc.  
Composition & Layout in Motion Graphics  
Storyboarding & Pre-visualization

**Unit 3: Tools & Techniques**

Working with Layers & Keyframes  
Masks, Mattes & Track Mattes  
Text Animation & Kinetic Typography  
Shape Animation & Vector Graphics  
Using Effects & Presets

**Unit 4: Advanced Motion Graphics**

3D Motion Graphics Basics  
Camera & Lighting in Motion Graphics  
Motion Tracking & Compositing  
Integration of Audio with Motion Graphics  
Expressions & Automation in After Effects

**Unit 5: Project Development & Output**

Concept Development & Idea Pitching  
Motion Graphics for Branding & Advertising  
Preparing Projects for Different Media Platforms  
Rendering & Export Settings (Web, Broadcast, Film)  
Final Project / Portfolio Development

**Reference Books**

1. Design for Motion: Fundamentals and Techniques of Motion Design – Austin Shaw
2. Creating Motion Graphics with After Effects – Chris Meyer & Trish Meyer
3. Motion Graphics: Principles and Practices from the Ground Up – Ian Crook & Peter Beare
4. The Art of Motion Graphics: Creative Aspects, Techniques and Applications – Michael Frierson
5. After Effects Apprentice – Chris & Trish Meyer

