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SNU SISTER NIVEDITA UNIVERSITY

SCHOOL OF MASS COMMUNICATION AND JOURNALISM
DEPARTMENT OF ANIMATION AND GRAPHIC
Masters of Science in Animation and Graphic

National Education Policy

SYLLABUS

TWO YEARS M.Sc (DEGREE)

COURSE IN

ANIMATION AND GRAPHIC

UNDER UGC-CBCS SYSTEM

2024-2025

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SCHOOL OF MASS COMMUNICATION AND JOURNALISM
DEPARTMENT OF ANIMATION AND GRAPHIC

Masters of Science in Animation and Graphic

Semester	Credits										Credits /Semester
	CC/CE	ME		Non-Major		MDC	AEC	SEC	VAC	INT	
		Course	Project	NM	NV						
I	6+6+6			1				1			20
II	3+4+4+4			2				1		2	20
III	4+4+4+2						3	1		2	20
IV	6+3+3			5		3	2			6	20
Credits/ Course	51			8		3	5	3		10	
Total Credit											80

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SEMESTER – I

Course Code	Course Name	L - T - P	Credits	Total Marks
CC-1	Story & Script Writing	1-0-2	2	100
CC-2	Art & Design for Communication	1-0-4	3	100
CC-3	Graphic Design for Web & Print	1-0-2	2	100
CC-4	Motion Graphics – I	0-0-4	2	100
CC-5	3D Modelling	0-0-8	4	100
CC-6	3D Texturing, Lighting & Rendering	0-0-8	4	100
DSE-I	Selected by Student***	0-0-4	2	100
SEC-I	Mentored Seminar I****	1-0-0	1	100
		Total	**20**	**800**

DSE-I:

1. Mind Mapping
2. Caricaturing
3. Illustration for Stories
4. Comic Strip / Graphic Novel Development

SEC-I:

Mentored Seminar – I Generative AI

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SEMESTER – II

Course Code	Course Name	L - T - P	Credits	Total Marks
CC-7	Concept Art & Storyboarding	0-0-4	2	100
CC-8	Digital Art	1-0-6	4	100
CC-9	UI/UX Design	1-0-2	2	100
CC-10	Motion Graphics – II	0-0-4	2	100
CC-11	Compositing Lab – I	0-0-4	2	100
CC-12	3D Rigging	0-0-6	3	100
DSE-II	Selected by Student***	1-0-2	2	100
SEC-II	Mentored Seminar II***	1-0-0	1	100
USC-I	Foreign Language***	2-0-0	2	100
		Total	**20**	**900**

DSE-II:

1. Digital Photography
2. Cinematography
3. Stop Motion Animation

SEC-II:

Mentored Seminar – II Pitching Scripts

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SEMESTER – III

Course Code	Course Name	L - T - P	Credits	Total Marks
CC-13	Game Art Design	0-0-2	1	100
CC-14	2D Digital Animation Production	0-0-4	2	100
CC-15	SMM Campaign Design	1-0-4	3	100
CC-16	VFX Lab – I	0-0-4	2	100
CC-17	Compositing Lab – II	0-0-6	3	100
CC-18	3D Animation – I	0-0-6	3	100
AECC-1	Selected by Student***	1-0-4	3	100
SEC-III	Mentored Seminar III***	1-0-0	1	100
USC-III	Foreign Language***	2-0-0	2	100
		Total	**20**	**900**

AECC-I:

1. Web Design
2. Video Editing
3. Sound Design

SEC-III:

Mentored Seminar – III Film Financing

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SEMESTER – IV

Course Code	Course Name	L - T - P	Credits	Total Marks
CC-19	3D Animation – II	0-0-4	2	100
CC-20	Dynamics Animation	0-0-4	2	100
CC-21	VFX Lab – II	0-0-4	2	100
DSE-III	Selected by Student***	1-0-8	5	100
GE-I	Selected by Student***	3-0-0	3	100
CC-22	Project III / Internship***	0-0-12	6	100
		Total	**20**	**600**

DSE-III:

1. Graphic Design
2. Motion graphics
3. 2D
4. 3D
5. VFX

GE-I:

1. Intellectual Property Rights
2. Basic Management Skills
3. Basic Psychological Processes

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Credit Distribution

Name of the PG program: M.Sc (Hons.)

Duration of program: 4 Semester (2 years)

Head of the department: Jhumur Dutta Gupta

Semester	Credit						
	CC	DSE	AECC	SEC	GE	USC	Total
1st	18	1	0	1	0	0	20
2nd	15	2	0	1	0	2	20
3rd	14	0	3	1	0	2	20
4th	12	5	0	0	3	0	20
Total Credit	**59**	**8**	**3**	**3**	**3**	**4**	**80**

- **CC-** Core Courses
- **DSE-** Discipline Specific Elective
- **AECC-** Ability Enhancement Compulsory Course
- **SEC-** Skill Enhancement Course
- **GE-** Generic Elective
- **USC-** University Specific Course

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SEMESTER-I

Story & Script Writing

Course Mission

To equip students with the skills and knowledge necessary to craft compelling stories and scripts for animation, fostering creativity, narrative structure, and character development to produce engaging and impactful animated content.

Course Vision

To become a leading program in story and script writing for animation, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create memorable and influential animated narratives.

Course Structure

Unit 1: Foundations of Storytelling

1.1 Understanding the basics of storytelling

1.2 Elements of a good story: Plot, character, and setting

1.3 Narrative structures and genres

1.4 The role of themes and motifs

Unit 2: Character Development

2.1 Creating compelling characters

2.2 Character arcs and development

2.3 Dialogue writing and character voice

2.4 Understanding character relationships and dynamics

Unit 3: Script Writing Techniques

3.1 Fundamentals of script formatting for animation

3.2 Writing scenes and sequences

3.3 Pacing and timing in scripts

3.4 Techniques for writing engaging dialogues and monologues

Unit 4: Advanced Story and Script Development

4.1 Developing storyboards from scripts

4.2 Revising and polishing scripts

4.3 Collaborative writing processes in animation

4.4 Case studies of successful animated scripts

Course Objectives (COs)

CO1: Introduce students to the fundamentals of storytelling, including the essential elements of plot, character, and setting.

CO2: Teach the various narrative structures and genres, and how to apply them to animation scripts.

CO3: Develop skills in creating and developing compelling characters, including their arcs, voices, and relationships.

CO4: Provide knowledge of script formatting specific to animation, including writing scenes, sequences, and dialogues.

CO5: Enhance understanding of pacing and timing in animation scripts, ensuring effective storytelling.

CO6: Foster skills in developing storyboards from scripts, bridging the gap between written and visual storytelling.

CO7: Cultivate the ability to revise and polish scripts, focusing on clarity, coherence, and engagement.

CO8: Encourage collaborative writing processes, preparing students for teamwork in the animation industry.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of the basics of storytelling and its application in animation.

PO2: Develop the ability to create well-structured narratives that resonate with audiences.

PO3: Acquire skills in character development, creating believable and engaging characters for animation.

PO4: Master the techniques of script writing specific to animation, including formatting, scene writing, and dialogue creation.

PO5: Understand the importance of pacing and timing in scripts, ensuring effective and engaging storytelling.

PO6: Learn to translate scripts into storyboards, enhancing visual storytelling skills.

PO7: Develop the ability to critically revise and polish scripts, ensuring high-quality written content.

PO8: Gain experience in collaborative writing, preparing for team-based projects in the animation industry.

PO9: Enhance creative thinking and problem-solving skills through the process of story and script development.

PO10: Cultivate an appreciation for the role of storytelling in animation, fostering a passion for creating impactful narratives.

PO11: Develop the ability to analyze and learn from successful animated scripts, applying these insights to original work.

PO12: Prepare for professional careers in animation, equipped with the knowledge and skills to write compelling stories and scripts.

Art & Design for Communication

Course Mission

To equip students with the skills and knowledge required to create effective visual communication through art and design, emphasizing logo design, brand identity, signage, flyers, brochures, and online marketing posters, ensuring impactful and memorable visual messaging.

Course Vision

To become a leading program in art and design for communication, recognized for its excellence in teaching, innovation, and ability to produce industry-ready professionals who can craft compelling and cohesive visual identities and marketing materials.

Course Structure

Unit 1: Fundamentals of Art and Design

1.1 Principles of visual communication

1.2 Elements of design: Line, shape, color, texture, and space

1.3 Introduction to typography

1.4 Understanding visual hierarchy and composition

Unit 2: Logo Design and Brand Identity

2.1 Principles of logo design

2.2 Creating logos: Concept to execution

2.3 Defining and developing brand identity

2.4 Case studies of successful brands

Unit 3: Designing Signage, Flyers, and Brochures

3.1 Design principles for signage

3.2 Creating effective flyers and brochures

3.3 Balancing aesthetics and functionality in design

3.4 Printing considerations and materials

Unit 4: Posters for Online Marketing/Promotion

4.1 Designing posters for digital platforms

4.2 Visual storytelling and engagement

4.3 Integrating design with marketing strategies

4.4 Evaluating and optimizing design effectiveness

Course Objectives (COs)

CO1: Introduce the principles of visual communication and the foundational elements of design.

CO2: Develop skills in understanding and applying visual hierarchy and composition in design projects.

CO3: Teach the principles and techniques of effective logo design, from concept development to execution.

CO4: Provide knowledge on defining and developing a cohesive brand identity.

CO5: Equip students with the skills to design impactful signage, flyers, and brochures.

CO6: Foster an understanding of the balance between aesthetics and functionality in printed materials.

CO7: Enhance skills in designing engaging posters for online marketing and promotion.

CO8: Encourage the integration of design principles with marketing strategies to create effective visual communication.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of the principles of visual communication and design elements.

PO2: Develop the ability to create visually appealing and effective compositions using visual hierarchy.

PO3: Acquire skills in logo design, creating memorable and impactful logos.

PO4: Understand the process of defining and developing a cohesive brand identity.

PO5: Master the design principles for creating effective signage, flyers, and brochures.

PO6: Learn to balance aesthetics and functionality in designing printed materials.

PO7: Develop proficiency in designing digital posters that engage and attract online audiences.

PO8: Integrate design principles with marketing strategies to enhance the effectiveness of visual communication.

PO9: Cultivate an appreciation for the role of art and design in communication, fostering a passion for creating impactful visual messaging.

PO10: Develop critical thinking and problem-solving skills through the process of design and communication projects.

PO11: Enhance the ability to analyze and learn from successful design case studies, applying these insights to original work.

PO12: Prepare for professional careers in art and design for communication, equipped with the knowledge and skills to create effective and cohesive visual identities and marketing materials.

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Graphic Design for Web & Print

Course Mission

To equip students with the skills and knowledge necessary to excel in graphic design for both web and print media, fostering creativity, technical proficiency, and an understanding of contemporary design practices.

Course Vision

To be a leading program in graphic design for web and print, recognized for its excellence in teaching, innovation, and ability to produce industry-ready professionals who create visually compelling and effective designs.

Course Structure

Unit 1: Fundamentals of Graphic Design

1.1 Introduction to graphic design principles

1.2 Historical context and influential design movements

1.3 Understanding color theory and its application

1.4 Typography: Basics and advanced techniques

Unit 2: Designing for Print Media

2.1 Principles of print design

2.2 Layout and composition for print

2.3 Preparing files for print production

2.4 Designing brochures, posters, and packaging

Unit 3: Designing for Web Media

3.1 Principles of web design

3.2 User interface (UI) and user experience (UX) design

3.3 Responsive design and accessibility

3.4 Designing web graphics and digital ads

Unit 4: Advanced Techniques and Practical Application

4.1 Integrating print and web design

4.2 Project-based learning: Developing a cohesive design campaign

4.3 Critiquing and refining design projects

4.4 Ethical considerations and sustainable design practices

Course Objectives (COs)

CO1: Introduce the principles and fundamentals of graphic design, including historical context and key movements.

CO2: Teach the application of color theory and advanced typography techniques in graphic design.

CO3: Provide knowledge on designing for print media, including layout, composition, and preparing files for production.

CO4: Enhance understanding of web design principles, focusing on UI, UX, responsive design, and accessibility.

CO5: Develop skills in creating effective web graphics and digital ads.

CO6: Foster practical application through project-based learning, integrating print and web design.

CO7: Cultivate the ability to critique and refine design projects, ensuring high-quality outcomes.

CO8: Encourage ethical considerations and sustainable practices in graphic design.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of the principles and fundamentals of graphic design.

PO2: Develop the ability to effectively use color theory and advanced typography techniques in design projects.

PO3: Acquire skills in designing for print media, including creating layouts, compositions, and preparing files for production.

PO4: Master the principles of web design, focusing on UI, UX, responsive design, and accessibility.

PO5: Learn to create visually appealing and effective web graphics and digital ads.

PO6: Enhance practical skills through project-based learning, developing cohesive design campaigns that integrate print and web media.

PO7: Develop critical thinking and problem-solving skills through the critique and refinement of design projects.

PO8: Understand and apply ethical considerations and sustainable practices in graphic design.

PO9: Cultivate creativity and innovation in graphic design for web and print.

PO10: Prepare for professional careers in graphic design, equipped with the knowledge and skills to create impactful visual communication.

PO11: Develop the ability to analyze and learn from successful design projects, applying these insights to original work.

PO12: Foster a passion for graphic design, encouraging continuous learning and improvement in both web and print media.

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Motion Graphics – I

Course Mission

To equip students with the skills and knowledge necessary to create dynamic motion graphics, including logo reveals, animations, and motion graphics for news channels, ensuring proficiency in visual storytelling and digital media.

Course Vision

To become a leading program in motion graphics, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create captivating and effective motion graphics for various media platforms.

Course Structure

Unit 1: Introduction to Motion Graphics

1.1 Understanding motion graphics and its applications

1.2 Basic principles of animation

1.3 Tools and software for motion graphics

1.4 Overview of the motion graphics industry

Unit 2: Logo Reveal and Animation

2.1 Principles of logo animation

2.2 Techniques for creating impactful logo reveals

2.3 Case studies of successful logo animations

2.4 Hands-on projects: Designing and animating logos

Unit 3: Motion Graphics for News Channels

3.1 Designing motion graphics for news channels

3.2 Creating lower thirds, news tickers, and transitions

3.3 Visual storytelling for news graphics

3.4 Case studies of effective news channel graphics

Unit 4: Advanced Motion Graphics Techniques

4.1 Advanced animation techniques

4.2 Integrating sound and motion

4.3 3D motion graphics and compositing

4.4 Evaluating and optimizing motion graphics for different platforms

Course Objectives (COs)

CO1: Introduce students to the fundamentals of motion graphics and its various applications.

CO2: Teach the basic principles of animation and how they apply to motion graphics.

CO3: Provide knowledge of tools and software used in the creation of motion graphics.

CO4: Develop skills in designing and animating logos, focusing on impactful logo reveals.

CO5: Equip students with the ability to create motion graphics for news channels, including lower thirds, news tickers, and transitions.

CO6: Foster an understanding of visual storytelling specifically tailored for news graphics.

CO7: Teach advanced animation techniques, including the integration of sound and 3D motion graphics.

CO8: Encourage the evaluation and optimization of motion graphics for various media platforms.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of motion graphics and its applications across different media.

PO2: Develop proficiency in the basic principles of animation and their application in motion graphics.

PO3: Acquire the skills to use various tools and software for creating motion graphics.

PO4: Master the techniques for designing and animating logos, creating impactful logo reveals.

PO5: Develop the ability to design and create motion graphics for news channels, enhancing visual storytelling.

PO6: Learn to create and optimize lower thirds, news tickers, and transitions for news broadcasts.

PO7: Gain advanced skills in animation techniques, including the integration of sound and 3D elements.

PO8: Enhance the ability to evaluate and optimize motion graphics for different platforms, ensuring high-quality outputs.

PO9: Cultivate an appreciation for the role of motion graphics in digital media, fostering a passion for creating dynamic visual content.

PO10: Develop critical thinking and problem-solving skills through the process of designing and animating motion graphics.

PO11: Enhance the ability to analyze and learn from successful motion graphics case studies, applying these insights to original work.

PO12: Prepare for professional careers in motion graphics, equipped with the knowledge and skills to create captivating and effective visual content for various media platforms.

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3D Modeling

Course Mission

To equip students with the skills and knowledge necessary to create detailed and versatile 3D models, focusing on both low poly and high poly models, as well as organic and inorganic models using Autodesk Maya, preparing them for a variety of applications in the animation, gaming, and visual effects industries.

Course Vision

To become a leading program in 3D modeling, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create high-quality 3D models for diverse applications in digital media.

Course Structure

Unit 1: Introduction to 3D Modeling

1.1 Basics of 3D modeling and its applications

1.2 Overview of Autodesk Maya interface and tools

1.3 Fundamental modeling techniques

1.4 Understanding 3D geometry: Vertices, edges, and faces

Unit 2: Low Poly and High Poly Modeling

2.1 Principles of low poly modeling

2.2 Techniques for creating efficient low poly models

2.3 Principles of high poly modeling

2.4 Techniques for creating detailed high poly models

Unit 3: Organic and Inorganic Modeling

3.1 Introduction to organic modeling

3.2 Techniques for modeling characters and creatures

3.3 Introduction to inorganic modeling

3.4 Techniques for modeling objects, environments, and props

Unit 4: Advanced 3D Modeling Techniques

4.1 Sculpting and texturing models

4.2 Retopology and optimization

4.3 Rendering and presenting 3D models

4.4 Case studies and hands-on projects

Course Objectives (COs)

CO1: Introduce students to the basics of 3D modeling and the applications of 3D models in various industries.

CO2: Teach the fundamentals of Autodesk Maya, including its interface and essential tools.

CO3: Develop skills in basic modeling techniques, focusing on understanding 3D geometry.

CO4: Provide knowledge of low poly modeling principles and techniques for creating efficient models.

CO5: Teach the principles of high poly modeling and techniques for creating detailed models.

CO6: Equip students with the ability to create organic models, including characters and creatures.

CO7: Develop skills in creating inorganic models, including objects, environments, and props.

CO8: Foster advanced modeling techniques, including sculpting, texturing, retopology, and rendering.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of 3D modeling and its applications in various digital media industries.

PO2: Develop proficiency in using Autodesk Maya for 3D modeling tasks.

PO3: Acquire foundational skills in 3D geometry and basic modeling techniques.

PO4: Master the principles and techniques of low poly modeling for creating efficient and optimized models.

PO5: Develop advanced skills in high poly modeling for creating detailed and intricate models.

PO6: Gain the ability to create organic models, focusing on characters and creatures.

PO7: Develop the skills to create inorganic models, including objects, environments, and props.

PO8: Learn advanced modeling techniques such as sculpting, texturing, retopology, and rendering.

PO9: Cultivate an appreciation for the role of 3D modeling in digital media, fostering a passion for creating high-quality models.

PO10: Develop critical thinking and problem-solving skills through the process of 3D modeling projects.

PO11: Enhance the ability to analyze and learn from successful 3D modeling case studies, applying these insights to original work.

PO12: Prepare for professional careers in 3D modeling, equipped with the knowledge and skills to create detailed and versatile models for various applications in animation, gaming, and visual effects.

3D Texturing, Lighting & Rendering

Course Mission

To provide students with comprehensive knowledge and hands-on skills in 3D texturing, lighting, and rendering using Autodesk Maya, enabling them to create visually stunning and realistic 3D assets for various digital media applications.

Course Vision

To become a premier program in 3D texturing, lighting, and rendering, recognized for its excellence in teaching, cutting-edge techniques, and ability to produce industry-ready professionals who can deliver high-quality visual content for animation, gaming, and visual effects.

Course Structure

Unit 1: Fundamentals of 3D Texturing

1.1 Introduction to texturing and its role in 3D modeling

1.2 Understanding UV mapping and unwrapping

1.3 Creating and applying textures in Autodesk Maya

1.4 Introduction to texture painting and materials

Unit 2: Advanced Texturing Techniques

2.1 Working with shaders and materials

2.2 Creating complex textures and maps (bump, specular, normal)

2.3 Using procedural textures and texture baking

2.4 Case studies of advanced texturing techniques

Unit 3: Lighting Techniques

3.1 Basics of lighting in 3D environments

3.2 Types of lights and their applications (point, directional, spot, ambient)

3.3 Creating realistic lighting setups

3.4 Understanding shadows and reflections

Unit 4: Rendering Techniques

4.1 Introduction to rendering in Autodesk Maya

4.2 Setting up and configuring render settings

4.3 Techniques for achieving realistic renders

4.4 Post-processing and compositing rendered images

Course Objectives (COs)

CO1: Introduce students to the fundamentals of 3D texturing, including UV mapping and texture application in Autodesk Maya.

CO2: Develop skills in creating and applying textures, including basic texture painting and materials.

CO3: Teach advanced texturing techniques, including shaders, complex texture maps, procedural textures, and texture baking.

CO4: Provide knowledge of lighting techniques in 3D environments, focusing on different types of lights and their applications.

CO5: Develop skills in creating realistic lighting setups, including understanding shadows and reflections.

CO6: Introduce rendering techniques in Autodesk Maya, including configuring render settings and achieving realistic renders.

CO7: Enhance skills in post-processing and compositing rendered images to achieve final visual outputs.

CO8: Foster the ability to integrate texturing, lighting, and rendering techniques to produce high-quality 3D assets.

Program Objectives (POs)

PO1: Gain a comprehensive understanding of 3D texturing, lighting, and rendering and their applications in digital media.

PO2: Develop proficiency in UV mapping and texture application using Autodesk Maya.

PO3: Acquire skills in advanced texturing techniques, including working with shaders, complex textures, and procedural methods.

PO4: Master the fundamentals of lighting in 3D environments, including the use of various light types and creating realistic setups.

PO5: Learn to create and manage realistic lighting effects, including shadows and reflections.

PO6: Understand and apply rendering techniques in Autodesk Maya, achieving high-quality visual outputs.

PO7: Develop skills in post-processing and compositing to enhance rendered images.

PO8: Integrate texturing, lighting, and rendering techniques to create visually stunning and realistic 3D assets.

PO9: Cultivate an appreciation for the role of texturing, lighting, and rendering in creating compelling 3D visuals.

PO10: Enhance problem-solving and critical thinking skills through the application of advanced texturing, lighting, and rendering techniques.

PO11: Analyze and learn from case studies and industry practices to apply best practices in 3D texturing, lighting, and rendering.

PO12: Prepare for professional careers in 3D design and visual effects, equipped with the skills to create high-quality and realistic 3D models and scenes.

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SEMESTER – II

Concept Art & Storyboarding

Course Mission

To provide students with the artistic skills and narrative techniques necessary to excel in concept art and storyboarding, enabling them to visualize and communicate compelling stories and ideas through professional-quality artwork and storyboards for various media industries.

Course Vision for

To become a leading program in concept art and storyboarding, recognized for its innovative teaching methods, excellence in artistic training, and ability to produce industry-ready professionals who can effectively bring stories and ideas to life through their visual artistry.

Course Structure for

Unit 1: Foundations of Concept Art

1.1 Introduction to concept art and its role in visual storytelling 1.2 Basic principles of drawing and design 1.3 Understanding light, color, and composition in concept art 1.4 Tools and techniques for digital painting and illustration

Unit 2: Character and Environment Design

2.1 Fundamentals of character design and development 2.2 Creating dynamic environments and settings 2.3 Techniques for developing unique and engaging visual styles 2.4 Hands-on project: Designing characters and environments for a specific story

Unit 3: Storyboarding Techniques

3.1 Principles of storyboarding and visual storytelling 3.2 Techniques for creating effective and dynamic storyboards 3.3 Understanding camera angles, movement, and pacing in storyboards 3.4 Hands-on project: Creating a storyboard for a short narrative

Unit 4: Advanced Concept Art and Storyboarding

4.1 Exploring advanced techniques in digital painting and illustration 4.2 Integrating storyboards with animatics and pre-visualization tools 4.3 Preparing concept art and storyboards for professional presentation 4.4 Final project: Developing a comprehensive concept art portfolio and storyboard

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of concept art and its role in visual storytelling.
- **CO2**: Teach the basic principles of drawing, design, light, color, and composition.
- **CO3**: Develop skills in digital painting and illustration tools and techniques.
- **CO4**: Provide knowledge on character and environment design for various media.
- **CO5**: Equip students with the ability to create dynamic and engaging storyboards.
- **CO6**: Develop advanced skills in visual storytelling through concept art and storyboarding.
- **CO7**: Teach students how to integrate storyboards with animatics and pre-visualization tools.
- **CO8**: Foster the ability to prepare and present professional-quality concept art and storyboards.
- **CO9**: Cultivate creativity and innovation in visual storytelling.
- **CO10**: Enhance problem-solving and critical thinking skills through concept art and storyboarding.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of concept art and storyboarding.
- **PO2**: Develop proficiency in using digital painting and illustration tools.
- **PO3**: Acquire skills in character and environment design for various media.
- **PO4**: Master the creation of effective and dynamic storyboards for visual storytelling.
- **PO5**: Learn to apply advanced techniques in digital painting and illustration.
- **PO6**: Understand the integration of storyboards with animatics and pre-visualization tools.
- **PO7**: Cultivate a unique artistic style and voice through concept art and storyboarding.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of visual storytelling.
- **PO9**: Analyze and learn from case studies of successful concept art and storyboarding to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting concept art and storyboards for professional output.
- **PO11**: Foster the ability to create a professional portfolio showcasing their concept art and storyboarding work.
- **PO12**: Prepare for professional careers in concept art and storyboarding, equipped with the knowledge and skills to visualize and communicate compelling stories and ideas.

Digital Art

Course Mission

To provide students with comprehensive knowledge and practical skills in digital art, enabling them to create expressive and high-quality digital artworks using a variety of tools and techniques for diverse artistic and professional applications.

Course Vision

To become a leading program in digital art, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready artists who can effectively integrate digital tools into their creative workflows to produce impactful and original art.

Unit 1: Introduction to Digital Art

1.1 Understanding digital art and its significance in contemporary art 1.2 Overview of digital art tools and software 1.3 Fundamentals of digital drawing and painting 1.4 Basics of color theory and composition in digital art

Unit 2: Techniques and Tools

2.1 Exploring different digital art techniques (e.g., vector art, pixel art) 2.2 Using digital brushes, layers, and masks effectively 2.3 Introduction to digital sculpting and 3D modeling 2.4 Hands-on project: Creating a digital artwork using various techniques

Unit 3: Advanced Digital Art Practices

3.1 Mastering advanced digital painting and illustration techniques 3.2 Integrating traditional art methods with digital processes 3.3 Creating concept art and visual storytelling 3.4 Hands-on project: Developing a series of advanced digital artworks

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and advanced digital art techniques 4.2 Preparing digital artworks for different platforms and media 4.3 Presenting and critiquing digital art projects 4.4 Final project: Developing a comprehensive digital art portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of digital art and its significance.
- **CO2**: Teach the basics of digital drawing, painting, and the use of digital art tools.
- **CO3**: Develop skills in using digital brushes, layers, masks, and other digital art techniques.
- **CO4**: Provide knowledge on color theory and composition in digital art.

- **CO5**: Equip students with the ability to create digital artworks using various techniques.
- **CO6**: Develop advanced skills in digital painting, illustration, and 3D modeling.
- **CO7**: Teach students how to integrate traditional art methods with digital processes.
- **CO8**: Foster the ability to create concept art and visual storytelling.
- **CO9**: Cultivate creativity and innovation in digital art.
- **CO10**: Enhance problem-solving and critical thinking skills through digital art projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of digital art.
- **PO2**: Develop proficiency in using industry-standard digital art tools and software.
- **PO3**: Acquire skills in digital drawing, painting, and various digital art techniques.
- **PO4**: Master the application of color theory and composition in digital art.
- **PO5**: Learn to create digital artworks using advanced painting, illustration, and 3D modeling techniques.
- **PO6**: Understand the integration of traditional art methods with digital processes.
- **PO7**: Cultivate a unique artistic style and voice through digital art projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of digital art.
- **PO9**: Analyze and learn from case studies of successful digital art to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting digital artworks for various platforms and media.
- **PO11**: Foster the ability to create a professional portfolio showcasing their digital art.
- **PO12**: Prepare for professional careers in digital art, equipped with the knowledge and skills to create expressive and high-quality digital artworks.

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SCHOOL OF MASS COMMUNICATION AND JOURNALISM
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Masters of Science in Animation and Graphic

UI/UX Design

Course Mission for "UI/UX Design"

To equip students with the knowledge and skills necessary to design user-friendly, aesthetically pleasing, and efficient user interfaces and user experiences, enabling them to create innovative and impactful digital products that meet user needs and enhance overall satisfaction.

Course Vision for "UI/UX Design"

To become a leading program in UI/UX design, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can effectively integrate user-centered design principles and practices into their creative workflows.

Unit 1: Introduction to UI/UX Design

1.1 Understanding UI/UX design and its importance 1.2 Overview of UI/UX design principles and methodologies 1.3 Tools and software for UI/UX design 1.4 Basics of user research and usability testing

Unit 2: Designing User Interfaces

2.1 Fundamentals of visual design for UI 2.2 Creating wireframes and prototypes 2.3 Designing for different devices and platforms 2.4 Hands-on project: Designing a user interface for a specific application

Unit 3: Enhancing User Experience

3.1 Principles of interaction design 3.2 Techniques for improving usability and accessibility 3.3 Conducting user research and usability testing 3.4 Hands-on project: Enhancing the user experience of a given product

Unit 4: Advanced UI/UX Design and Professional Practice

4.1 Exploring advanced UI/UX design techniques and trends 4.2 Integrating UI/UX design with development processes 4.3 Preparing UI/UX designs for presentation and implementation 4.4 Final project: Developing a comprehensive UI/UX design portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of UI/UX design and its importance in digital product development.
- **CO2**: Teach the principles and methodologies of UI/UX design.
- **CO3**: Develop skills in using tools and software for UI/UX design.
- **CO4**: Provide knowledge on visual design principles and techniques for creating user interfaces.
- **CO5**: Equip students with the ability to create wireframes and prototypes.
- **CO6**: Develop advanced skills in interaction design and usability enhancement.
- **CO7**: Teach students how to conduct user research and usability testing.
- **CO8**: Foster the ability to prepare and present professional-quality UI/UX designs.
- **CO9**: Cultivate creativity and innovation in UI/UX design.
- **CO10**: Enhance problem-solving and critical thinking skills through UI/UX design projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of UI/UX design principles and methodologies.
- **PO2**: Develop proficiency in using tools and software for UI/UX design.
- **PO3**: Acquire skills in visual design for creating user-friendly interfaces.
- **PO4**: Master the creation of wireframes and prototypes for digital products.
- **PO5**: Learn to apply advanced techniques in interaction design and usability enhancement.
- **PO6**: Understand the importance of user research and usability testing in UI/UX design.
- **PO7**: Cultivate a unique design style and voice through UI/UX projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of UI/UX design.
- **PO9**: Analyze and learn from case studies of successful UI/UX designs to apply best practices in their own work.

- **PO10**: Develop skills in preparing and presenting UI/UX designs for professional output and implementation.
- **PO11**: Foster the ability to create a professional portfolio showcasing their UI/UX design work.
- **PO12**: Prepare for professional careers in UI/UX design, equipped with the knowledge and skills to create innovative and user-centered digital products.

Motion Graphics – II

Course Mission

To provide students with advanced knowledge and skills in motion graphics, enabling them to create dynamic, visually compelling animations and graphics for various media, utilizing industry-standard tools and techniques for professional applications.

Course Vision

To become a leading program in advanced motion graphics, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create cutting-edge motion graphics that captivate and engage audiences.

Unit 1: Fundamentals of Motion Graphics

1.1 Understanding motion graphics and its applications 1.2 Overview of motion graphics principles and techniques 1.3 Introduction to industry-standard software and tools 1.4 Basics of animation and keyframing

Unit 2: Advanced Animation Techniques

2.1 Exploring advanced animation principles (e.g., easing, timing) 2.2 Techniques for creating complex motion paths and effects 2.3 Using expressions and scripts to enhance animations 2.4 Hands-on project: Creating an advanced animation sequence

Unit 3: Visual Effects and Compositing

3.1 Fundamentals of visual effects (VFX) in motion graphics 3.2 Techniques for integrating live-action footage with animations 3.3 Using compositing tools and techniques 3.4 Hands-on project: Creating a motion graphic with integrated VFX

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and advanced motion graphics techniques 4.2 Preparing motion graphics for various media platforms 4.3 Presenting and critiquing motion graphics projects 4.4 Final project: Developing a comprehensive motion graphics portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of motion graphics and its applications.
- **CO2**: Teach the principles and techniques of motion graphics animation.
- **CO3**: Develop skills in using industry-standard software and tools for motion graphics.
- **CO4**: Provide knowledge on advanced animation principles and techniques.
- **CO5**: Equip students with the ability to create complex motion paths and effects.
- **CO6**: Develop advanced skills in using expressions and scripts in animations.
- **CO7**: Teach students the fundamentals of visual effects and compositing.
- **CO8**: Foster the ability to integrate live-action footage with animations.
- **CO9**: Cultivate creativity and innovation in motion graphics.
- **CO10**: Enhance problem-solving and critical thinking skills through motion graphics projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of motion graphics.
- **PO2**: Develop proficiency in using industry-standard software and tools for motion graphics.
- **PO3**: Acquire skills in advanced animation principles and techniques.

- **PO4**: Master the creation of complex motion paths and effects.
- **PO5**: Learn to apply expressions and scripts to enhance animations.
- **PO6**: Understand the fundamentals of visual effects and compositing in motion graphics.
- **PO7**: Cultivate a unique artistic style and voice through motion graphics projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of motion graphics.
- **PO9**: Analyze and learn from case studies of successful motion graphics to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting motion graphics for various media platforms.
- **PO11**: Foster the ability to create a professional portfolio showcasing their motion graphics work.
- **PO12**: Prepare for professional careers in motion graphics, equipped with the knowledge and skills to create dynamic and visually compelling animations.

3D Compositing Lab – I

Course Mission

To provide students with foundational knowledge and skills in 3D compositing, enabling them to integrate 3D elements seamlessly into live-action footage and digital environments using industry-standard tools and techniques.

Course Vision

To become a leading program in 3D compositing, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create visually stunning and realistic composites for various media applications.

Unit 1: Introduction to 3D Compositing

1.1 Understanding 3D compositing and its applications 1.2 Overview of industry-standard compositing software 1.3 Basics of 3D elements and their integration 1.4 Fundamentals of layers, masks, and alpha channels

Unit 2: Working with 3D Elements

2.1 Importing and managing 3D assets 2.2 Techniques for matching lighting and shadows 2.3 Camera tracking and matchmoving 2.4 Hands-on project: Integrating 3D objects into a live-action scene

Unit 3: Advanced Compositing Techniques

3.1 Color correction and grading for composites 3.2 Using depth of field and motion blur 3.3 Creating realistic reflections and refractions 3.4 Hands-on project: Creating a complex 3D composite scene

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and advanced 3D compositing techniques 4.2 Preparing composites for different media platforms 4.3 Presenting and critiquing compositing projects 4.4 Final project: Developing a comprehensive 3D compositing portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of 3D compositing and its applications.
- **CO2**: Teach the basics of using industry-standard compositing software.
- **CO3**: Develop skills in integrating 3D elements into live-action footage.
- **CO4**: Provide knowledge on managing 3D assets and matching lighting and shadows.
- **CO5**: Equip students with the ability to perform camera tracking and matchmoving.
- **CO6**: Develop advanced skills in color correction and grading for composites.
- **CO7**: Teach students techniques for creating realistic depth of field, motion blur, reflections, and refractions.
- **CO8**: Foster the ability to prepare and present professional-quality 3D composites.
- **CO9**: Cultivate creativity and innovation in 3D compositing.

- **CO10**: Enhance problem-solving and critical thinking skills through 3D compositing projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of 3D compositing.
- **PO2**: Develop proficiency in using industry-standard compositing software.
- **PO3**: Acquire skills in integrating 3D elements into live-action footage.
- **PO4**: Master techniques for matching lighting, shadows, and camera movement.
- **PO5**: Learn to apply advanced compositing techniques such as color correction and grading.
- **PO6**: Understand the creation of realistic depth of field, motion blur, reflections, and refractions.
- **PO7**: Cultivate a unique artistic style and voice through 3D compositing projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of 3D compositing.
- **PO9**: Analyze and learn from case studies of successful 3D composites to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting 3D composites for various media platforms.
- **PO11**: Foster the ability to create a professional portfolio showcasing their 3D compositing work.
- **PO12**: Prepare for professional careers in 3D compositing, equipped with the knowledge and skills to create visually stunning and realistic composites.

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3D Rigging

Course Mission

To equip students with the technical expertise and creative skills necessary to create sophisticated and efficient rigging systems for 3D models using Autodesk Maya, enabling them to bring characters and objects to life for various animation and gaming applications.

Course Vision

To become a leading program in 3D rigging, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create robust and versatile rigs for high-quality animations and interactive media.

Unit 1: Introduction to 3D Rigging

1.1 Understanding 3D rigging and its importance in animation 1.2 Overview of Autodesk Maya's rigging tools and interface 1.3 Basics of creating and manipulating joints and skeletons 1.4 Fundamentals of kinematics: Forward Kinematics (FK) and Inverse Kinematics (IK)

Unit 2: Building Basic Rigs

2.1 Creating and configuring joint hierarchies 2.2 Building control rigs for simple objects 2.3 Skinning and binding techniques 2.4 Hands-on project: Rigging a basic character model

Unit 3: Advanced Rigging Techniques

3.1 Introduction to constraints and controllers 3.2 Creating facial rigs and blend shapes 3.3 Scripting and automation in rigging with MEL and Python 3.4 Hands-on project: Rigging a complex character with facial expressions

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and advanced rigging techniques 4.2 Rigging for different animation pipelines (film, games, etc.) 4.3 Troubleshooting and optimizing rigs 4.4 Final project: Developing a comprehensive rigging portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of 3D rigging and its importance in animation.
- **CO2**: Teach the basics of using Autodesk Maya's rigging tools and interface.
- **CO3**: Develop skills in creating and manipulating joints and skeletons.
- **CO4**: Provide knowledge on kinematics and rigging principles.
- **CO5**: Equip students with the ability to build and configure basic control rigs.
- **CO6**: Develop advanced skills in constraints, controllers, and facial rigging.
- **CO7**: Teach students scripting and automation techniques in rigging.
- **CO8**: Foster the ability to troubleshoot and optimize rigs for various applications.
- **CO9**: Cultivate creativity and innovation in 3D rigging.
- **CO10**: Enhance problem-solving and critical thinking skills through rigging projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of 3D rigging.
- **PO2**: Develop proficiency in using Autodesk Maya's rigging tools and interface.
- **PO3**: Acquire skills in creating and manipulating joints, skeletons, and control rigs.
- **PO4**: Master kinematics principles and their application in rigging.
- **PO5**: Learn to apply advanced rigging techniques, including constraints, controllers, and facial rigs.
- **PO6**: Understand the use of scripting and automation to enhance rigging workflows.
- **PO7**: Cultivate a unique artistic style and voice through rigging projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of 3D rigging.
- **PO9**: Analyze and learn from case studies of successful rigging projects to apply best practices in their own work.
- **PO10**: Develop skills in troubleshooting and optimizing rigs for different animation pipelines.

- **PO11**: Foster the ability to create a professional portfolio showcasing their 3D rigging work.
- **PO12**: Prepare for professional careers in 3D rigging, equipped with the knowledge and skills to create sophisticated and efficient rigs for high-quality animations and interactive media.

SEMESTER – III

Game Art Design

Course Mission

To equip students with the artistic and technical skills required to create visually stunning and immersive game art, enabling them to design characters, environments, and assets that enhance the gaming experience using industry-standard tools and techniques.

Course Vision

To become a leading program in game art design, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create captivating game art that brings interactive worlds to life.

Unit 1: Fundamentals of Game Art Design

1.1 Introduction to game art design and its importance in game development 1.2 Overview of game art styles and genres 1.3 Basic principles of drawing and digital painting for games 1.4 Tools and software used in game art design

Unit 2: Character Design and Development

2.1 Fundamentals of character design for games 2.2 Creating character concepts and turnarounds 2.3 Techniques for modeling, texturing, and rigging game characters 2.4 Hands-on project: Designing and developing a game character

Unit 3: Environment and Asset Design

3.1 Principles of environment design for games 3.2 Creating concept art for game environments 3.3 Techniques for modeling, texturing, and lighting game environments 3.4 Hands-on project: Designing and developing a game environment

Unit 4: Advanced Techniques and Professional Practice

4.1 Exploring advanced game art techniques and trends 4.2 Optimizing game assets for performance and quality 4.3 Preparing game art for various platforms and engines 4.4 Final project: Developing a comprehensive game art portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of game art design and its role in game development.
- **CO2**: Teach the basic principles of drawing, digital painting, and art styles for games.
- **CO3**: Develop skills in using tools and software for game art design.
- **CO4**: Provide knowledge on character design, modeling, texturing, and rigging for games.
- **CO5**: Equip students with the ability to create concept art and turnarounds for characters.
- **CO6**: Develop advanced skills in environment design, modeling, texturing, and lighting for games.
- **CO7**: Teach students techniques for optimizing game assets for performance and quality.
- **CO8**: Foster the ability to prepare and present professional-quality game art.
- **CO9**: Cultivate creativity and innovation in game art design.

- **CO10**: Enhance problem-solving and critical thinking skills through game art design projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of game art design.
- **PO2**: Develop proficiency in using industry-standard tools and software for game art design.
- **PO3**: Acquire skills in character design, modeling, texturing, and rigging for games.
- **PO4**: Master the creation of concept art and turnarounds for game characters.
- **PO5**: Learn to apply advanced techniques in environment design, modeling, texturing, and lighting for games.
- **PO6**: Understand the importance of optimizing game assets for performance and quality.
- **PO7**: Cultivate a unique artistic style and voice through game art design projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of game art design.
- **PO9**: Analyze and learn from case studies of successful game art design to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting game art for various platforms and engines.
- **PO11**: Foster the ability to create a professional portfolio showcasing their game art design work.
- **PO12**: Prepare for professional careers in game art design, equipped with the knowledge and skills to create visually stunning and immersive game art.

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2D Digital Animation Production

Course Mission for

To equip students with the technical expertise and creative skills necessary to excel in the field of 2D digital animation, enabling them to produce high-quality animations, develop compelling narratives, and utilize industry-standard tools and techniques for professional applications.

Course Vision

To become a leading program in 2D digital animation, recognized for its innovative teaching methods, commitment to excellence, and ability to produce industry-ready professionals who can create captivating animations and contribute to the advancement of the animation industry.

Unit 1: Foundations of 2D Digital Animation

1.1 Introduction to 2D animation principles and techniques 1.2 Overview of industry-standard software and tools 1.3 Basics of drawing and design for animation 1.4 Understanding timing and spacing in animation

Unit 2: Character Design and Development

2.1 Fundamentals of character design 2.2 Creating character turnarounds and model sheets 2.3 Developing character personalities and expressions 2.4 Hands-on project: Designing and animating a character

Unit 3: Storyboarding and Scene Composition

3.1 Principles of storyboarding and visual storytelling 3.2 Layout design and scene composition 3.3 Techniques for creating dynamic and engaging scenes 3.4 Hands-on project: Creating a storyboard and animating a scene

Unit 4: Advanced Animation Techniques and Professional Practice

4.1 Exploring advanced animation techniques (e.g., effects animation, lip-sync) 4.2 Integrating sound and music in animations 4.3 Preparing animations for final output and presentation 4.4 Final project: Developing a professional-quality animated short film

Course Objectives (COs)

- **CO1**: Introduce students to the fundamental principles and techniques of 2D digital animation.
- **CO2**: Teach the basics of drawing and design as applied to animation.
- **CO3**: Develop skills in using industry-standard software and tools for 2D animation.
- **CO4**: Provide knowledge on character design and development for animation.
- **CO5**: Equip students with the ability to create storyboards and plan animations effectively.
- **CO6**: Develop advanced skills in animation techniques, including effects animation and lip-sync.
- **CO7**: Teach students how to integrate sound and music into their animations.
- **CO8**: Foster the ability to prepare and present professional-quality animations.
- **CO9**: Cultivate creativity and innovation in animation production.
- **CO10**: Enhance problem-solving and critical thinking skills through the animation process.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of 2D digital animation.
- **PO2**: Develop proficiency in using industry-standard software and tools for animation production.
- **PO3**: Acquire skills in character design and development for animation.
- **PO4**: Master the creation of storyboards and scene composition for effective visual storytelling.
- **PO5**: Learn to apply advanced animation techniques to create high-quality animations.
- **PO6**: Understand the importance of sound and music integration in animations.
- **PO7**: Cultivate a unique artistic style and voice through the animation process.

- **PO8**: Enhance problem-solving and critical thinking skills in the context of animation production.
- **PO9**: Analyze and learn from case studies of successful animations to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting animations for professional output and presentation.
- **PO11**: Foster the ability to create a professional portfolio showcasing their animation work.
- **PO12**: Prepare for professional careers in animation, equipped with the knowledge and skills to produce high-quality 2D digital animations.

SMM Campaign Design

Course Mission

To equip students with the strategic, creative, and technical skills required to design, implement, and analyze effective social media marketing (SMM) campaigns that engage audiences, build brand awareness, and drive business growth.

Course Vision

To become a leading program in social media marketing campaign design, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create impactful and successful SMM campaigns across various platforms.

Unit 1: Fundamentals of Social Media Marketing

1.1 Understanding the role of social media in modern marketing 1.2 Overview of popular social media platforms and their audiences 1.3 Basic principles of social media marketing strategies 1.4 Tools and software used in SMM campaign design

Unit 2: Campaign Planning and Content Creation

2.1 Developing SMM campaign objectives and goals 2.2 Creating engaging and relevant content for social media 2.3 Designing visual and multimedia content 2.4 Hands-on project: Planning and creating content for a social media campaign

Unit 3: Execution and Management

3.1 Scheduling and publishing content across platforms 3.2 Using social media management tools for campaign efficiency 3.3 Engaging with audiences and community management 3.4 Hands-on project: Executing and managing a live social media campaign

Unit 4: Analysis and Optimization

4.1 Monitoring and measuring campaign performance 4.2 Analyzing metrics and deriving insights 4.3 Optimizing campaigns for better results 4.4 Final project: Developing a comprehensive SMM campaign report and portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of social media marketing and its significance.
- **CO2**: Teach the basics of various social media platforms and their audiences.
- **CO3**: Develop skills in creating strategic social media marketing plans.
- **CO4**: Provide knowledge on creating engaging and relevant social media content.
- **CO5**: Equip students with the ability to design visual and multimedia content for social media.
- **CO6**: Develop skills in using social media management tools for efficient campaign execution.
- **CO7**: Teach students how to engage with audiences and manage online communities.
- **CO8**: Foster the ability to monitor and measure social media campaign performance.
- **CO9**: Cultivate creativity and innovation in social media marketing.
- **CO10**: Enhance problem-solving and critical thinking skills through social media marketing projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and strategies of social media marketing.
- **PO2**: Develop proficiency in using various social media platforms and understanding their unique audiences.
- **PO3**: Acquire skills in strategic planning and content creation for social media campaigns.
- **PO4**: Master the design of visual and multimedia content tailored for social media platforms.
- **PO5**: Learn to execute and manage social media campaigns using advanced management tools.
- **PO6**: Understand the techniques for engaging with social media audiences and managing online communities.
- **PO7**: Cultivate a unique creative approach to social media marketing through innovative campaign designs.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of social media marketing.
- **PO9**: Analyze and learn from case studies of successful social media campaigns to apply best practices in their own work.
- **PO10**: Develop skills in monitoring, measuring, and optimizing social media campaign performance.
- **PO11**: Foster the ability to create a professional portfolio showcasing their social media marketing campaigns.
- **PO12**: Prepare for professional careers in social media marketing, equipped with the knowledge and skills to design, implement, and analyze effective SMM campaigns.

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VFX Lab – I

Course Mission

To provide students with a solid foundation in visual effects (VFX) for film and animation, equipping them with the technical skills and creative techniques necessary to create compelling and realistic visual effects using industry-standard tools and software.

Course Vision

To become a leading program in visual effects education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can enhance storytelling through high-quality VFX in film and animation.

Unit 1: Introduction to VFX

1.1 Understanding the role of VFX in film and animation 1.2 Overview of VFX techniques and processes 1.3 Introduction to industry-standard VFX software 1.4 Basics of compositing and layering

Unit 2: Creating Visual Effects

2.1 Fundamentals of green screen and chroma keying 2.2 Techniques for creating and integrating matte paintings 2.3 Basics of particle effects and simulations 2.4 Hands-on project: Creating a basic VFX shot

Unit 3: Advanced VFX Techniques

3.1 Introduction to 3D tracking and matchmoving 3.2 Basics of digital set extensions and environment creation 3.3 Techniques for realistic lighting and rendering in VFX 3.4 Hands-on project: Developing a complex VFX sequence

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and advanced VFX techniques 4.2 Preparing VFX shots for different media platforms 4.3 Presenting and critiquing VFX projects 4.4 Final project: Developing a comprehensive VFX portfolio

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of VFX and its role in film and animation.
- **CO2**: Teach the basics of VFX techniques and processes.
- **CO3**: Develop skills in using industry-standard VFX software.
- **CO4**: Provide knowledge on compositing and layering techniques.
- **CO5**: Equip students with the ability to create and integrate green screen and chroma key effects.
- **CO6**: Develop skills in creating matte paintings and particle effects.
- **CO7**: Teach students the basics of 3D tracking and matchmoving.
- **CO8**: Foster the ability to create digital set extensions and realistic environments.
- **CO9**: Cultivate creativity and innovation in VFX.
- **CO10**: Enhance problem-solving and critical thinking skills through VFX projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of VFX.
- **PO2**: Develop proficiency in using industry-standard VFX software and tools.
- **PO3**: Acquire skills in creating and integrating VFX into film and animation projects.
- **PO4**: Master the application of compositing, layering, and chroma key techniques.
- **PO5**: Learn to create and integrate matte paintings, particle effects, and simulations.
- **PO6**: Understand the basics of 3D tracking, matchmoving, and digital set extensions.
- **PO7**: Cultivate a unique artistic style and voice through VFX projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of VFX.
- **PO9**: Analyze and learn from case studies of successful VFX projects to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting VFX shots for various media platforms.
- **PO11**: Foster the ability to create a professional portfolio showcasing their VFX work.
- **PO12**: Prepare for professional careers in VFX, equipped with the knowledge and skills to create compelling and realistic visual effects for film and animation.

3D Compositing Lab – II

Course Mission

To provide students with advanced knowledge and skills in 3D compositing, enabling them to seamlessly integrate 3D elements into live-action footage and animated sequences using industry-standard software, and to create visually compelling and realistic final compositions.

Course Vision

To become a leading program in advanced 3D compositing education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can deliver high-quality visual effects and compositions for film, television, and digital media.

Unit 1: Foundations of Advanced 3D Compositing

1.1 Overview of advanced 3D compositing techniques and applications 1.2 Introduction to industry-standard 3D compositing software 1.3 Understanding 3D space and camera tracking 1.4 Basics of integrating 3D elements with live-action footage

Unit 2: Advanced Techniques and Tools

2.1 Advanced keying and matte extraction techniques 2.2 Techniques for realistic lighting and rendering in 3D compositing 2.3 Creating and integrating complex particle systems and simulations 2.4 Hands-on project: Advanced compositing of a 3D element into a live-action shot

Unit 3: Enhancing Realism and Detail

3.1 Techniques for adding depth and realism to composites 3.2 Using advanced rotoscoping and masking techniques 3.3 Integrating 3D models and animations with environmental effects 3.4 Hands-on project: Developing a highly detailed 3D composited scene

Unit 4: Professional Practice and Portfolio Development

4.1 Exploring industry trends and best practices in 3D compositing 4.2 Preparing composites for different media platforms 4.3 Presenting and critiquing advanced 3D compositing projects 4.4 Final project: Developing a comprehensive 3D compositing portfolio

Course Objectives (COs)

- **CO1**: Introduce students to advanced 3D compositing techniques and their applications.
- **CO2**: Teach the use of industry-standard 3D compositing software.
- **CO3**: Develop skills in understanding 3D space and camera tracking.
- **CO4**: Provide knowledge on integrating 3D elements with live-action footage.
- **CO5**: Equip students with advanced keying and matte extraction techniques.
- **CO6**: Develop skills in realistic lighting and rendering for 3D compositing.
- **CO7**: Teach techniques for creating and integrating complex particle systems and simulations.
- **CO8**: Foster the ability to add depth and realism to composites.
- **CO9**: Cultivate creativity and innovation in 3D compositing.
- **CO10**: Enhance problem-solving and critical thinking skills through advanced 3D compositing projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of advanced 3D compositing.
- **PO2**: Develop proficiency in using industry-standard 3D compositing software and tools.
- **PO3**: Acquire skills in integrating 3D elements with live-action footage and animated sequences.
- **PO4**: Master advanced keying, matte extraction, and rotoscoping techniques.
- **PO5**: Learn to create realistic lighting and rendering effects in 3D compositing.
- **PO6**: Understand the creation and integration of complex particle systems and simulations.
- **PO7**: Cultivate a unique artistic style and voice through advanced 3D compositing projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of 3D compositing.

- **PO9**: Analyze and learn from case studies of successful 3D compositing projects to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting composites for various media platforms.
- **PO11**: Foster the ability to create a professional portfolio showcasing their advanced 3D compositing work.
- **PO12**: Prepare for professional careers in 3D compositing, equipped with the knowledge and skills to create visually compelling and realistic final compositions for film, television, and digital media.

3D Animation Lab – I

Course Mission

To provide students with a comprehensive understanding of the fundamental principles and techniques of 3D animation using Autodesk Maya, equipping them with the skills necessary to create dynamic and lifelike animations for various digital media applications.

Course Vision

To become a leading program in 3D animation education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals who can create high-quality 3D animations using Autodesk Maya.

Unit 1: Introduction to 3D Animation

1.1 Overview of 3D animation and its applications 1.2 Introduction to Autodesk Maya interface and tools 1.3 Basic principles of animation (timing, spacing, squash and stretch, etc.) 1.4 Creating simple animations using keyframes

Unit 2: Modeling and Rigging

2.1 Fundamentals of 3D modeling in Autodesk Maya 2.2 Techniques for creating basic character models 2.3 Introduction to rigging and setting up a character rig 2.4 Hands-on project: Modeling and rigging a simple character

Unit 3: Animation Techniques and Tools

3.1 Advanced keyframing techniques and animation curves 3.2 Principles of character animation (walk cycles, facial expressions, etc.) 3.3 Using constraints and controllers for complex animations 3.4 Hands-on project: Animating a character with walk cycles and expressions

Unit 4: Rendering and Finalizing Animations

4.1 Introduction to lighting and rendering in Autodesk Maya 4.2 Techniques for adding textures and materials to models 4.3 Rendering animations and basic post-production techniques 4.4 Final project: Creating and rendering a short 3D animation

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of 3D animation and its applications.
- **CO2**: Teach the basic principles of animation and how to apply them in Autodesk Maya.
- **CO3**: Develop skills in using the Autodesk Maya interface and tools.
- **CO4**: Provide knowledge on creating simple animations using keyframes.
- **CO5**: Equip students with the ability to model and rig basic characters in Autodesk Maya.
- **CO6**: Develop skills in advanced keyframing techniques and animation curves.
- **CO7**: Teach principles of character animation, including walk cycles and facial expressions.
- **CO8**: Foster the ability to use constraints and controllers for complex animations.
- **CO9**: Cultivate creativity and innovation in 3D animation.
- **CO10**: Enhance problem-solving and critical thinking skills through 3D animation projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of 3D animation.
- **PO2**: Develop proficiency in using Autodesk Maya for 3D animation projects.
- **PO3**: Acquire skills in creating simple and complex animations using keyframes.
- **PO4**: Master the fundamentals of 3D modeling and rigging in Autodesk Maya.
- **PO5**: Learn to apply advanced keyframing techniques and animation curves.
- **PO6**: Understand the principles of character animation, including walk cycles and facial expressions.
- **PO7**: Cultivate a unique artistic style and voice through 3D animation projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of 3D animation.
- **PO9**: Analyze and learn from case studies of successful 3D animations to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting 3D animations for various media platforms.
- **PO11**: Foster the ability to create a professional portfolio showcasing their 3D animation work.
- **PO12**: Prepare for professional careers in 3D animation, equipped with the knowledge and skills to create dynamic and lifelike animations using Autodesk Maya.

SEMESTER – IV

3D Animation Lab – II

Course Mission

To provide students with advanced skills in 3D animation, focusing on character expressions and acting using Autodesk Maya, enabling them to create emotionally engaging and believable character performances for film, games, and other digital media.

Course Vision

To become a leading program in advanced 3D character animation education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals capable of creating compelling and lifelike character animations using Autodesk Maya.

Unit 1: Advanced Principles of Animation

1.1 Review of basic animation principles 1.2 Introduction to advanced animation techniques 1.3 Exploring subtlety and nuance in character movement 1.4 Techniques for creating dynamic and natural poses

Unit 2: Facial Expressions and Lip Sync

2.1 Anatomy of facial expressions and emotions 2.2 Techniques for animating realistic facial expressions 2.3 Introduction to lip-sync animation 2.4 Hands-on project: Creating a dialogue scene with facial expressions and lip sync

Unit 3: Character Acting and Performance

3.1 Principles of acting for animators 3.2 Techniques for conveying character emotions and intentions 3.3 Understanding timing and rhythm in character performance 3.4 Hands-on project: Animating a character performance based on a script

Unit 4: Refining and Polishing Animation

4.1 Techniques for refining and polishing animations 4.2 Using animation layers and non-linear animation (NLA) tools 4.3 Critiquing and iterating on animation projects 4.4 Final project: Creating and polishing a fully acted 3D character animation

Course Objectives (COs)

- **CO1**: Introduce students to advanced animation principles and techniques.
- **CO2**: Teach advanced techniques for creating dynamic and natural character poses.
- **CO3**: Develop skills in animating realistic facial expressions.
- **CO4**: Provide knowledge on lip-sync animation.
- **CO5**: Equip students with principles of acting for animators.
- **CO6**: Develop techniques for conveying character emotions and intentions.
- **CO7**: Teach understanding of timing and rhythm in character performance.
- **CO8**: Foster the ability to refine and polish animations using advanced tools.
- **CO9**: Cultivate creativity and innovation in character animation.
- **CO10**: Enhance problem-solving and critical thinking skills through advanced 3D animation projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of advanced principles and techniques in 3D character animation.
- **PO2**: Develop proficiency in using Autodesk Maya for advanced character animation projects.
- **PO3**: Acquire skills in creating dynamic and natural character poses.
- **PO4**: Master techniques for animating realistic facial expressions and lip sync.
- **PO5**: Learn principles of acting and how to apply them in character animation.
- **PO6**: Understand techniques for conveying character emotions and intentions.
- **PO7**: Cultivate a unique artistic style and voice through advanced character animation projects.

- **PO8**: Enhance problem-solving and critical thinking skills in the context of character animation.
- **PO9**: Analyze and learn from case studies of successful character animations to apply best practices in their own work.
- **PO10**: Develop skills in refining and polishing animations using advanced tools.
- **PO11**: Foster the ability to create a professional portfolio showcasing their advanced character animation work.
- **PO12**: Prepare for professional careers in 3D animation, equipped with the knowledge and skills to create emotionally engaging and believable character performances using Autodesk Maya.

3D Dynamics Animation Lab

Course Mission for "3D Dynamics Animation" Using Autodesk Maya

To equip students with advanced knowledge and skills in 3D dynamics animation using Autodesk Maya, enabling them to create realistic simulations of natural phenomena, physical interactions, and dynamic effects for film, games, and digital media.

Course Vision for "3D Dynamics Animation" Using Autodesk Maya

To become a leading program in 3D dynamics animation education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals capable of creating high-quality dynamic simulations using Autodesk Maya.

Course Structure for "3D Dynamics Animation" Using Autodesk Maya

Unit 1: Introduction to Dynamics in Autodesk Maya

1.1 Overview of dynamics animation and its applications 1.2 Introduction to Autodesk Maya's dynamics tools and interface 1.3 Basics of particle systems and their properties 1.4 Creating simple particle effects

Unit 2: Rigid and Soft Body Dynamics

2.1 Understanding rigid body dynamics and collisions 2.2 Techniques for simulating soft body dynamics 2.3 Creating and controlling dynamic constraints 2.4 Hands-on project: Simulating a rigid and soft body interaction

Unit 3: Fluid, Cloth, and Hair Simulation

3.1 Basics of fluid dynamics and creating realistic liquid simulations 3.2 Techniques for simulating cloth behavior and interactions 3.3 Introduction to hair and fur dynamics 3.4 Hands-on project: Creating a complex scene with fluid, cloth, and hair simulations

Unit 4: Advanced Dynamics and Integration

4.1 Combining different dynamic systems in a single scene 4.2 Techniques for optimizing dynamic simulations 4.3 Integrating dynamics with character animation and other elements 4.4 Final project: Developing a comprehensive dynamic animation sequence

Course Objectives (COs)

- **CO1**: Introduce students to the fundamentals of dynamics animation and its applications.
- **CO2**: Teach the use of Autodesk Maya's dynamics tools and interface.
- **CO3**: Develop skills in creating and controlling particle systems.
- **CO4**: Provide knowledge on simulating rigid and soft body dynamics.
- **CO5**: Equip students with techniques for creating realistic fluid, cloth, and hair simulations.
- **CO6**: Develop skills in combining different dynamic systems in a single scene.
- **CO7**: Teach techniques for optimizing dynamic simulations.
- **CO8**: Foster the ability to integrate dynamics with character animation and other elements.
- **CO9**: Cultivate creativity and innovation in dynamics animation.
- **CO10**: Enhance problem-solving and critical thinking skills through dynamic animation projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of the principles and techniques of dynamics animation.
- **PO2**: Develop proficiency in using Autodesk Maya's dynamics tools and interface.
- **PO3**: Acquire skills in creating and controlling particle systems for various effects.
- **PO4**: Master techniques for simulating rigid and soft body dynamics.
- **PO5**: Learn to create realistic fluid, cloth, and hair simulations.
- **PO6**: Understand the integration of different dynamic systems in a single scene.
- **PO7**: Cultivate a unique artistic style and voice through dynamics animation projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of dynamics animation.
- **PO9**: Analyze and learn from case studies of successful dynamics animations to apply best practices in their own work.
- **PO10**: Develop skills in optimizing dynamic simulations for efficiency and realism.
- **PO11**: Foster the ability to create a professional portfolio showcasing their dynamics animation work.
- **PO12**: Prepare for professional careers in 3D dynamics animation, equipped with the knowledge and skills to create high-quality dynamic simulations using Autodesk Maya.

3D VFX Lab – II

Course Mission for

To provide students with advanced knowledge and skills in 3D visual effects (VFX), enabling them to create complex and high-quality VFX for film, television, and digital media using industry-standard software and techniques.

Course Vision

To become a leading program in advanced 3D VFX education, recognized for its excellence in teaching, innovative approach, and ability to produce industry-ready professionals capable of delivering cutting-edge visual effects for diverse media platforms.

Unit 1: Advanced VFX Fundamentals

1.1 Review of basic VFX principles and techniques 1.2 Introduction to industry-standard VFX software (e.g., Houdini, Nuke) 1.3 Understanding complex VFX workflows and pipelines 1.4 Hands-on project: Creating a basic VFX shot using advanced techniques

Unit 2: Particle and Fluid Simulations

2.1 Advanced techniques for particle system creation and control 2.2 Creating realistic fluid simulations (water, smoke, fire) 2.3 Integrating particle and fluid simulations into live-action footage 2.4 Hands-on project: Developing a VFX scene with particle and fluid simulations

Unit 3: Advanced Compositing and Lighting

3.1 Techniques for advanced compositing using layers and passes 3.2 Realistic lighting and rendering for VFX 3.3 Using HDRI for environment lighting and reflections 3.4 Hands-on project: Compositing a complex VFX shot with advanced lighting

Unit 4: Integrating VFX into Final Projects

4.1 Techniques for integrating VFX into various media platforms 4.2 Preparing VFX shots for final output and delivery 4.3 Critiquing and refining VFX projects 4.4 Final project: Creating a comprehensive VFX sequence for a short film

Course Objectives (COs)

- **CO1**: Introduce students to advanced VFX principles and techniques.
- **CO2**: Teach the use of industry-standard VFX software and tools.
- **CO3**: Develop skills in creating and controlling advanced particle systems.
- **CO4**: Provide knowledge on fluid simulations and integrating them into live-action footage.

- **CO5**: Equip students with advanced compositing techniques using layers and passes.
- **CO6**: Develop skills in realistic lighting and rendering for VFX.
- **CO7**: Teach the use of HDRI for environment lighting and reflections.
- **CO8**: Foster the ability to integrate VFX into final projects for various media platforms.
- **CO9**: Cultivate creativity and innovation in 3D VFX.
- **CO10**: Enhance problem-solving and critical thinking skills through advanced VFX projects.

Program Objectives (POs)

- **PO1**: Gain a comprehensive understanding of advanced principles and techniques in 3D VFX.
- **PO2**: Develop proficiency in using industry-standard VFX software and tools.
- **PO3**: Acquire skills in creating and controlling complex particle and fluid simulations.
- **PO4**: Master techniques for advanced compositing, lighting, and rendering.
- **PO5**: Learn to integrate VFX into live-action footage and digital media projects.
- **PO6**: Understand the use of HDRI for environment lighting and reflections.
- **PO7**: Cultivate a unique artistic style and voice through advanced VFX projects.
- **PO8**: Enhance problem-solving and critical thinking skills in the context of 3D VFX.
- **PO9**: Analyze and learn from case studies of successful VFX projects to apply best practices in their own work.
- **PO10**: Develop skills in preparing and presenting VFX shots for final output and delivery.
- **PO11**: Foster the ability to create a professional portfolio showcasing their advanced VFX work.
- **PO12**: Prepare for professional careers in 3D VFX, equipped with the knowledge and skills to create high-quality visual effects for film, television, and digital media.