

CURRICULUM DESIGN

THREE YEAR SIX SEMESTER PROGRAMME:
BACHELOR OF SCIENCE (ANIMATION) WITH
MAJOR ANIMATION AND MINOR DRAWING
AND PAINTING (NEP)

FACULTY: INTERDISCIPLINARY

YEAR: SECOND

Semester III	
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Curriculum Design

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
	III	800230	History of Western Animation	2	30	3 hrs.	50 (Internal:20 External:30)

Course Objective	Develop in-depth knowledge of the origins, growth, and cultural relevance of animation worldwide. And promote an understanding of the diversity of animation as an art form by looking at styles, and technological developments.		
Course Outcomes	Students will able to <ol style="list-style-type: none">1. Develop and distinguish various working styles of animators.2. Critically analysis western animated film styles.3. Critically analysis Indian animated film styles.4. Differentiate and interpret knowledge of Indian and Western Animated movies on basis of styles, themes.5. Recognize area for application according to animation styles and articulate skills for problem solving.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Beginning of Animation Early Animation History, Magic lantern, Thaumatrope, Phenakistoscope, Zoetrope, Kineograph, Praxinoscope, First Animation Movie, Work of Émile Reynaud's, J. Stuart Blackton's.	8	Group Discussions and Debates Case Studies Field Trips Multimedia Presentations
Unit II	Styles of Animation North America, Asian: Japanese, Chinese, Indian, South Korea, European, Latin America, Africa, Middle East.	8	
Unit III	Animation Studios Pixar Animation Studios, Walt Disney Animation Studios, DreamWorks Animation, Sony Pictures Animation, Nickelodeon Animation Studio, Studio Ghibli., Aardman Animations, Laika,Blue Sky Studios.	8	
Unit IV	Recent Trends in Animation Hybridization, Minimalism, Realism, Experimental Styles, Virtual Reality, Augmented Reality, Mixed Reality.	6	
References	Textbooks <ol style="list-style-type: none">1. The world history of Animation.,N Cavalier,University of Californina Press. Reference <ol style="list-style-type: none">1. ndustrial Light & Magic: The Art of Special Effects;- Thomas G. Smith, Ballantine Books,2. Animated Life: A Lifetime of Tips, Tricks, Techniques and Stories from a Disney Legend:Floyd3. 4. Secrets of Oscar winning Animation: Oliver Cotte, Focal press,2006,ISBN: 97802405207004. Illusion of Life:- Frank Thomson, Hyperion,1995, 1st Edition, ISBN:- 0786860707 Digital Resources <ol style="list-style-type: none">1. Introduction to Film Studies, Dr. Aysha Iqbal Viswamohan, http://nptel.iitm.ac.in2. Storyboarding, Justus Mccraine, https://www.tomorrowsfilmmakers.com/9..3. Film language and grammar,Dr. Manu Sharma,https://www.youtube.com/watch?v=jV-MdOiA1J0&list=PLZnNDLd9I4FWc0KUqcwEvOnaXMGBBh9VC&index=7		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
	III	800231	Advance of 2D Animation	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop to create visually appealing 2D Animation by exploring animation principles, drawing techniques, and software animations required for various media, including film, television, and digital platforms.		
Course Outcomes	Students will able to <div><div>1.</div><div>Explore various animation styles, including traditional hand-drawn animation, cut-out animation, and digital puppetry.</div></div> <div><div>2.</div><div>Make use of principles of animation to create visual appealing animations.</div></div> <div><div>3.</div><div>Creating animation</div></div> <div><div>4.</div><div>Experimenting special effects by synchronizing animation with sound effects, music, and dialogue.</div></div>		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Introduction and Interface Principles of Animation	8	Practical Workshops Study Case Studies Project based learning Live Demonstrations Hands-on Workshops
Unit II	Basic animation of Human, Animal ,Birds Walk, Run, Jump, Gallop, Fly, Take-off, Landing	8	
Unit III	Character Animation Interaction of Characters, Character in actions.	6	
Unit IV	Expressions with dialogues Character expression, Lips synchronization.	8	
References	Textbook <div><div>1.</div><div>Drawing & Painting Trees in the Landscape : North Light Books,9781440305375</div></div> Reference <div><div>1.</div><div>Drawing Mentor 12, Landscape Drawing:Sarah Bowles</div></div> <div><div>2.</div><div>Pencil Magic: Landscape Drawing Techniques:Phil Metzger</div></div> <div><div>3.</div><div>Drawing the Landscape: Chip Sullivan, Wiley,1118454812</div></div> Digital Resources <div><div>1.</div><div>How to Draw Spirited Away Clouds: Circle line art school</div></div> <div><div>2.</div><div>How to Draw Rocks and Stones:Landscape in Colored Pencil:The Pencil Maestro, https://www.youtube.com/watch?v=eVF_IkPEWjs</div></div> <div><div>3.</div><div>How to Draw Trees with Pen and Ink: Drawing & Painting - The Virtual Instructor,https://www.youtube.com/watch?v=hw0EwL3SXWQ</div></div>		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
	III	800235	Aesthetics	2	15	3 hrs.	50 (Internal:20 External:30)

Course Objective	Will develop a deeper understanding of aesthetic experiences through philosophical study of beauty, an art.		
Course Outcomes	Students will able to <ol style="list-style-type: none"> Understanding various art forms, including visual arts, literature, music, theater, and film, to understand their aesthetic qualities. Understand the impact of various religious and cultural exchanges on the evolution of Art, Animation. Understand the impact of cultural values, beliefs, and traditions on artistic expression and taste. Analyze and evaluate works of art using appropriate art historical methodologies and terminology. Investigate the aesthetics of emerging media, such as digital art, virtual reality, and design. 		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Understanding Art Definition, Types of Art, Appreciation of Art, Elements of art appreciation, Art in relation to society, Modern Art.	2	Group Discussions and Debates Case Studies Field Trips Multimedia Presentations
Unit II	Visual Art Visual Art: Definition, Types of Visual Art: Painting, Types of painting, Sculpture and its types, Photography, Installation, Kinetic Art, Art in Motion	2	
Unit III	Indian Aesthetics Aesthetics: Definition, Art and Aesthetics, Relationship of Art and Aesthetics, Understanding Indian aesthetics Shadangas of Indian painting, Chitrasurtra-vishnudharmaottra purana, Chitralakshanas, Five Schools of Indian Aesthetics,Theory of Rasa and Bhava.	6	
Unit IV	Western Aesthetics Plato, Aristotle, Longinus, Descarte, Berkele, Kant, Hegal, Schopenhouser, Nietzsche, Lipps, Dewey,Tolstoy, Croce, Gentile, Worringer, Herbert Read, Sigmund Freud	5	
References	Textbooks <ol style="list-style-type: none"> Aesthetics: Prof. JayprakashJagtap, Jagtap Publishing House Cinematography: Blain Brown, Focal Press,2002 Reference <ol style="list-style-type: none"> Film History: An Introduction, Kristin Thompson,McGraw-Hill,2002 The Work of Art in the Age of Mechanical Reproduction: Walter Benjamin The Work of Film in the Age of Digital Reproduction, The Visual Story: Creating the Visual Structure of Film, TV and Digital Media:Bruce Block, Focal Press, 2007 Digital Resources <ol style="list-style-type: none"> The Paintings of India - The Art of India - https://youtu.be/5xpJeO_syN4 Murals of India - Benoy K Behl #SrijanTalks Ancient Art and Culture Of India Cave Paintingshttps://youtu.be/m3S2Gpnku3I?list=PLTotFEE2ywN7niLXiM0vitUQcWv2DRuEh Kala aursanskriti - https://youtu.be/ShDt3dD5Yqk Types of Indian Paintings - Different kinds of Indian traditional & folk Paintings & Art.-https://youtu.be/r6XQSfTYZPo 		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
	III	800238	Storyboarding and Animatic	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Gives comprehensive understanding of perspective drawing and provide skills needed to create visually compelling and spatially accurate artworks.		
Course Outcomes	Students will able to <ol style="list-style-type: none">1. Define visual storytelling concepts such as shot composition, camera angles, and framing.2. Adapt storyboarding techniques for various industries, including animation, film, gaming, and advertising3. Create storyboards that effectively convey tone, mood, and narrative flow of film.4. Understand the role of animatic in the production pipeline5. Compile storyboards into animatic using software.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Introduction to Storyboarding Story, Screen play, concept art, Frame composition, Staging, Camera angles, Color schemes, Lighting, Timing, types of storyboards, Rough music	8	Sketchbooks and Drawing Assignments Design Challenges Project based learning Live Demonstrations
Unit II	Storyboard Design Storyboard Format Sequence Scene and Shots, Frame Ratio, Camera Movements, Editing rules with dynamic angles, Composition, Dialogs, Action, Voice-over, and Rough Music, Timing	8	
Unit III	Introduction to Animatic Introduction, Software's for animatic	6	
Unit IV	Making of Animatic Introduction, Compiling Frames, In-between and breakdown frames, Transitions, Camera Movements, Timing, Key Poses, Rough Effects, Rough Sound Tracks, Rendering and Rough Film output.	8	
References	Textbook <ol style="list-style-type: none">1. Storyboards: Motion in Art: Mark A. Simon, Focal Press,2006, 0240808053 References <ol style="list-style-type: none">2. Perspective Made Easy, Ernest R. Norling, Walter Foster, Walter Foster Publication.3. The Art of Comic Book Drawing: More Than 100 Drawing and Illustration Techniques for Rendering Comic Book Characters and Storyboards: Maury Aaseng, Walter Foster Publishing, 2020, 97816332283064. Movie Storyboards:Fionnuala Halligan, Chronicle Books, 2013, 9781452131917 Digital Resources <ol style="list-style-type: none">1. Introduction to Film Studies, Dr. Aysha Iqbal Viswamohan, http://nptel.iitm.ac.in2. Storyboarding, Justus Mccraine, https://www.tomorrowfilmmakers.com/9..3. Film language and grammar,Dr. Manu Sharma,https://www.youtube.com/watch?v=jV-MdOiA1J0&list=PLZnNDLd9I4FWc0KUqcwEvOnaXMGBBh9VC&index=7		

Semester IV

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
5.0	IV	800246	Art Direction	2	15	3 hrs.	50 (Internal:20 External:30)

Course Objective	Identify and analyze key milestones in Indian animation history, including the pioneering works, technological advancements, and major contributors that have influenced the trajectory of the industry.		
Course Outcomes	Students will able to <ol style="list-style-type: none">Gain a comprehensive understanding of the historical development of animation in India, including key milestones, significant figures, and major trends.Develop the ability to critically analyze and interpret Indian animated films, shorts, series, and advertisements, considering their artistic merits, storytelling techniques, and thematic relevance.Recognize the impact of globalization on the Indian animation industry.Explore their own creative potential within the field of animation, drawing inspiration from Indian cultural traditions while also experimenting with innovative storytelling techniques and visual styles.Gain insights into the practical aspects of animation production in India, including the role of animation studios, funding and financing models, distribution channels, and career opportunities.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Concept Development Story and Theme, Screen play, Story boarding, Animatic,Genre	2	Group Discussions and Debates Case Studies Field Trips Multimedia Presentations
Unit II	Art Direction inPre-production Concept Art, Color Palette, Lighting Concept, Character Design, Props design, Layout Design	2	
Unit III	Art Direction in Production Set construction, Dressing, Prop design, Cinematography, Costumes,	3	
Unit IV	Art Direction in Post-production Color Grading, Visual Effects, Set and Prop Enhancement, Motion Graphics and Titles, Sound Design and Visual Synchronization, Digital Matte Painting	8	
References	Textbooks <ol style="list-style-type: none">Animation: Giannalberto Bendazzi, Focal Press,1138854816 References <ol style="list-style-type: none">Enchanted Drawings: The History of Animation Charles Solomon,Random House Value Publishing,0517118599An Autobiography Of Indian Animation,Chaiti GhoshFrames of Time: A Visual History of Indian AnimationFrom Script to Screen: The Journey of Indian AnimationAnimated Realities: History, Theory, and Practice of Indian Animation Digital Resources <ol style="list-style-type: none">The History of Indian Animation,https://www.youtube.com/watch?v=kJKfZrRIxUMA Brief History of Indian Animation, ComicVerse		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
5.0	IV	800249	Advanced Assets Building	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop student’s technical skills, emotional intelligence, and collaborative abilities, preparing them for various roles in theater, film, and television.		
Course Outcomes	Students will able to 1. Construct architectural Design in 3D. 2. Explain organic and inorganic modeling. 3. Compose 3D backgrounds required for Film, Advertisements, etc 4. Apply texturing on Props and Characters models. 5. Compose light setup Props, Characters models and environment elements.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Architectural Design Exterior Design, Interior Design	8	Practical Workshops Scene Work Project based learning Live Demonstrations Solo and group performance
Unit II	Organic and Inorganic Modeling Car Modeling, Under water, Background Modelling	8	
Unit III	Texturing Exterior Texturing, Interior Texturing, Car Texturing	6	
Unit IV	Lighting Environment Lighting, Product Lighting	8	
References	Textbook 1. An Actor Prepares, Constantin Stanislavski,0878309837 References 1. Rizzo, Michael, The Art Direction Handbook for Film & Television, Taylor & Francis ,2015 2. Nik Mohan, Art Direction, Bloomsbury Publishing, 2010 3. Fischer, Lucy, Art Direction and Production Design, Rutgers University Press ,2015 . 4. Sergei Eisentein,Problems of Film Direction,University Press of Pacific,2004 Digital Resources 1. Acting for Animation Preview: The Art of Aaron Blaise, https://www.youtube.com/watch?v=H8bsqnKqkQs 2. How to Animate a Dialogue: https://www.youtube.com/watch?v=Mn9bIFjwDZo&list=PLm4m_oJCf2lMEUOgjgFtdaZi7KgvY_63Z		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
5.0	IV	800250	Advanced Rigging and Blend shapes	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop student’s technical skills, anatomical, and logical abilities, preparing them for various roles in theater, film, and television.		
Course Outcomes	Students will able to 1. Demonstrate proficiency in basic rigging techniques. 2. Create detailed and believable mechanical characters or object analysis. 3. Analyze the anatomical study of character objectives 4. Develop a strong skills for both logical as well as creative analysis. 5. Exhibit professionalism in rigging.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Basic Rigging Ball Rig, Chair Rig	6	Practical Workshops Scene Work Project based learning Live Demonstrations
Unit II	Mechanical Rigging Mechanical Object Rig	8	
Unit III	Vehicle Rigging Car Rig, Wheel Mechanism	8	
Unit IV	Advanced Cartoon Rigging Cartoon Character Rigging and Skinning	8	
References	Textbooks 1. Rig it right! Maya animation rigging concepts: O'Hailey, Tina, Focal Press, 2017 References 1. An Essential Introduction to Maya Character Rigging - Cheryl Briggs 2. Rig it Right! Maya Animation Rigging Concepts, 2nd edition - O'Hailey Tina 3. Body Language: Advanced 3D Character Rigging - Eric Allen & Kelly L Murdock 4. Animation Methods: Rigging Made Easy - David Rodriguez Digital Resources 1. Mechanical Riggin https://www.youtube.com/playlist?list=PLDXGa6BGbkDicDfh2ptH4xWzVeuELbxbz 2. Advanced Cartoon Rigging https://www.youtube.com/playlist?list=PLL3OEv6vd5VBh8vnehdp2ITpE0q8jAeo https://www.youtube.com/playlist?list=PLbvsJz5ZcmxHEPiw_kF3vHjR023rIjR05 https://www.youtube.com/playlist?list=PLbvsJz5ZcmxGpUYWF-JqqXyRdAMpFtVf9		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
5.0	III	800252	Interactive Computer Graphics	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop user interface (UI) and user experience (UX) design skills for designing intuitive, user-centered interfaces and experiences for digital products.		
Course Outcomes	Students will able to <ol style="list-style-type: none">Understand the importance of user needs, behaviors, and motivations in the design process.Decide methods for conducting user research, including surveys, interviews, and usability testing.Explore typography, color theory, layout, and iconography in creating appealing UI designs.Develop interactive prototypes using industry based software.Apply ideation, testing, and research to design solution that solve real world issues.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Introduction to UX and UI Introduction to UX and UI terminology and software, Introduction to Sketching, Creating paper prototypes, Design Principles, typography	8	Sketchbooks and Drawing Assignments Design Challenges Project based learning Live Demonstrations
Unit II	APPLICATION OF COLORS Color modes, Monochromatic, Color Wheel, Color Harmonies, Color Contrast, Gray scales, Color psychology, color palette	8	
Unit III	UI Elements Text fields, Buttons, Sliders, Tooltips, Selection Controls, Cards, Dialogs, List, Tables, Navigations, Charts, Snack bars	6	
Unit IV	Project Management Create Design System, Creating mood boards, Create wireframe, Box Models, Responsiveness	8	
References	Textbook <ol style="list-style-type: none">Sketching User Experiences:Saul Greenberg, Morgan Kaufmann, 2011,0123819598 Reference <ol style="list-style-type: none">Universal Principles of Design: William Lidwell, Rockport Publishers, 2003, 1592530079The Design of Everyday Things:Donald A. Norman, Basic Books,2002,9780465067107Microinteractions: Designing with Details:Dan Saffer, O'Reilly Media,144934268X,2013 Digital Resources <ol style="list-style-type: none">User Interface Design, Prof. Saptarshi Kolay, https://youtu.be/jLQauZP2e_4Storyboarding, Justus Mccraine, https://www.tomorrowsfilmmakers.com/9..Film language and grammar,Dr. Manu Sharma,https://www.youtube.com/watch?v=jV-MdOiA1J0&list=PLZnNDLd9I4FWc0KUqcwEvOnaXMGBBh9VC&index=7		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
4.5	IV	800253	Basic of 3D Animation	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop to create visually appealing 2D Animation by exploring animation principles, drawing techniques, and software animations required for various media, including film, television, and digital platforms.		
Course Outcomes	Students will able to <ol style="list-style-type: none">1. Explore various animation styles, including traditional hand-drawn animation, cut-out animation, and digital puppetry.2. Make use of principles of animation to create visual appealing animations.3. Creating animation4. Experimenting special effects by synchronizing animation with sound effects, music, and dialogue.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Introduction of 3D Animation Introduction, Principles of Animation, 3D Animation pipeline	6	Practical Workshops Scene Work Project based learning Live Demonstrations
Unit II	Path Animation Straight Path, Zigzag path	8	
Unit III	Principles of Animations Bouncing Ball, Wave, Timing	8	
Unit IV	Biped and Quadruped Animation Walk, Run, Jump, Gallop	8	
References	Textbooks <ol style="list-style-type: none">1. Introducing Autodesk Maya 2012, Dariush Derakhshani, Sybex, 0470900210 References <ol style="list-style-type: none">1. Essential skills for 3D modeling, rendering, and animation: Nicholas Bernhardt Zeman,Taylor & Francis, 2015,97814822241222. Modeling, UV Mapping, and Texturing 3D Game Weapons, Christian Chang, Wordware Pub, 97815562287043. 3D Character Development Workshop:Erik Van Horn, Mercury Learning and Information, 1683921704 Digital Resources <ol style="list-style-type: none">1. Foundations of Graphic Design Trailer:https://www.youtube.com/watch?v=645fDb27RAI&list=PLD8AMy73ZVxVe63ATjAoi_8kqkNUeHpbr.2. Understanding the Elements of Design : https://www.youtube.com/watch?v=01ZoynsM7Vw&list=PLATYfhN6gQz9O07qe9FILY4NrfvWCbdGl		

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
4.5	IV	800254	Basic of Matte Painting	1	30	3 hrs.	50 (Internal 25 External:25)

Course Objective	Develop skills to use perspective, lighting, and composition, master digital painting and photo integrationcreate realistic or stylized digital environments for film, games, and visual media.		
Course Outcomes	Students will able to <ol style="list-style-type: none">Understand the principles, process, history and application of matte painting.Apply principles of perspective, lighting, and composition to build immersive mattepainting.Understand techniquescoloring, lighting and perspective to manipulate matte painting.Create realistic and stylized matte paintings for various media.Explore 3D tools, camera projections for creating immersive 3D matte paintings.		
Unit System	Contents	Learning Hours	Incorporation of Pedagogies
Unit I	Introduction to Matte painting Introduction, Making process, Applications of Matte painting.	6	Practical Workshops Scene Work Project based learning Live Demonstrations
Unit II	Tools Application for Matte painting Layer masking, Level layers, Color correction, Depth of Field, Lighting.	8	
Unit III	Matte painting Manipulation Converting day light into night light, Use of 3D Assets and Images.	8	
Unit IV	Motion Matte Camera setting and camera movements, Parallax camera movements.	8	
References	Textbooks <ol style="list-style-type: none">Mastering Drawing the Human Figure From Life, Memory, Imagination:Jack Faragasso, Faragasso,0966711300 References <ol style="list-style-type: none">The Art of Basic Drawing, Walter Foster, Walter Foster PublicationThe Complete Book of Drawing Skills: Barrington Barber,Arcturus Publishing,9781398832602Memory Drawing Simplified: Tushar Moleshwari,Jyotsnaprakashan, 9788179254448Complete Guide to Drawing, DrawingGeorge B. Bridgman, Sterling Publication Co. IncVilppu Drawing Manual, Glenn V. Vilpp, Vilppu Studio Digital Resources <ol style="list-style-type: none">The History of Indian Animation,https://www.youtube.com/watch?v=kJKfZrRIxUMA Brief History of Indian Animation, ComicVerse		

