Deccan Education Society's

Fergusson College (Autonomous) Pune

Learning Outcomes-Based Curriculum

for 3 / 4 years B. Voc.

Programmeas per guidelines of

NEP-2020

for

S. Y. B. Voc.

(Digital Art & Animation)

With effect from Academic Year

2024-2025

Program Outcomes (POs) for B.Voc. Programme	
PO1	**Disciplinary Knowledge:** Demonstrate comprehensive knowledge of the disciplines that form a part of an graduate programme. Execute strong theoretical and practical understanding generated from the specific graduate programme in the area of work.
PO2	**Critical Thinking and Problem solving:** Exhibit the skills of analysis, inference, interpretation and problem-solving by observing thesituation closely and design the solutions.
PO3	**Social competence:** Display the understanding, behavioural skills needed for successful social adaptation , workin groups, exhibits thoughts and ideas effectively in writing and orally.
PO4	**Research-related skills and Scientific temper:** Develop the working knowledge and applications of instrumentation and laboratory techniques. Able to apply skills to design and conduct independent experiments, interpret, establish hypothesis and inquisitiveness towards research.
PO5	**Trans-disciplinary knowledge:** Integrate different disciplines to uplift the domains of cognitive abilities and transcendbeyond discipline-specific approaches to address a common problem.
PO6	**Personal and professional competence:** Performing dependentlyand also collaboratively as a part of team to meet defined objectives and carry out work across interdisciplinary fields.Execute interpersonal relationships, self-motivation and adaptability skills and commit to professional ethics.
PO7	**Effective Citizenship and Ethics:** Demonstrate empathetic social concern and equity centred national development, and ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.
PO8	**Environment and Sustainability:** Understand the impact of the scientific solutions in societal and environmental contexts anddemonstrate the knowledge of and need for sustainable development.
PO9	**Self-directed and Life-long learning:** Acquire the ability to engage in independent and life-long learning in the broadest contextof socio-technological changes.

PSO No.	Program Specific Outcomes(PSOs) Upon completion of this Programme the student will be able to
PSO1	**Academic competence**: (i) Build understanding for correct blend of Art & Technology instead of only technical tools (ii) Create competence in the fields of Computer Graphics assets creation, Visual Effects,Gaming and Graphic designing. (iii) Understand the ongoing changing trends and keep them updated with the latest technology. (iv) Produce creative and technical skills in various domains of Animation, Gaming, VFX andmultimedia. This will enable them to be employed globally.
PSO2	**Personal and Professional Competence**: (i) Use critical thinking skills and problem-solving strategies for overall development of theprofessional growth in the fields like Animation, VFX, gaming, and graphics. (ii) Carry out industry orientated new technologies and new trends in animation, VFX &graphics. (iii) Create ample opportunities to work effectively to emerge as an acceptable team leader byworking on team projects & assignments.
PSO3	**Research Competence:** (i) Apply technical knowledge and methodologies from animation softwares in order to conductresearch and demonstrate appropriate skill to seek solutions to problems that emerge in various fields of 3d animation & VFX simulations. (ii) Review relevant literature and can develop a hypothesis and conduct methodical research onany topic related to Animation.
PSO4	**Entrepreneurial and Social competence:** (i) Break down course with 3 exit points gives this course more entrepreneurial optionscompared with regular graduation degrees. (ii) Develop Entrepreneurial capabilities considering animation industry works mainly onfreelancing and individual creativity. (iii) Build adequate knowledge, skill, dedication and work ethics required for accomplishment ofthe assigned task and strengthen social competency skills. (iv) Able to demonstrate their acquired knowledge for the growth of social and ethical values inoutdoor activities, such as service learning, internships and field work. (v) Maintain and develop ethics of Media, Animation & Gaming Industry as these industriesplays vital role in today's generations

Fergusson College (Autonomous), Pune
Proposed First Year Curriculum as per NEP 2020
Department of Animation
Structure for Major / Minor

Semester	Subject TYPE	Paper Code	Paper Title	Credits
III	Major	BVA-200	2D ANIMATION PRACTICAL	2
		BVA-201	2D CHARACTER ANIMATION	4
		BVA-202	ANIMATION IN MEDIA	2
	Minor	BVA-211	SCRIPT WRITING	2
		BVA-212	VIDEO EDITING	2
	OE	BVA-220	STORY TELLING FOR ANIMATION	2
	VSC	BVA-230	PRE-PRODUCTION – 1	2
	CEP	BVA-245	COMMUNITY ENGAGEMENT PROGRAM	2

Semester	Subject TYPE	Paper Code	Paper Title	Credits
IV	Major	BVA-250	3D ANIMATION PRACTICAL	2
		BVA-251	INTRODUCTION TO 3D	4
		BVA-252	UI DESIGN	2
	Minor	BVA-261	DRAWING FOR ANIMATION	2
		BVA-262	PRE-PRODUCTION - 2	2
	OE	BVA-270	INTRODUCTION TO GAME DESIGN	2
	SEC	BVA-290	MOTION GRAPHICS	2
	FP	BVA-295	FIELD PROJECT	2

Title of the Course and Course Code	2D ANIMATION PRACTICAL (BVA-200) (Major-Practical)	Number of Credits: 02

Course Outcomes (COs) On completion of the course, the students will be able to:	
CO1	Describe the production pipeline of animation.
CO2	Discuss the art and style carried in 2D Animation.
CO3	Determine various animation techniques with basic principles of animation.
CO4	Apply action analysis and observations to animated drawings.
CO5	Analyze basic animation movements for characters or objects.
CO6	Create drawings that represent actions and emotions.

Unit No.	Title of Unit and Contents	No. of hours
I	**Introduction to Digital 2D animation tools**	10
II	**Front Walk cycle Traditional**	5
III	**Front Walk cycle Digital**	5
IV	Front run cycle **Traditional**	5
V	**Front run cycle digital**	5
VI	Quadruped run & walk cycle traditional	8
VII	Quadruped run & walk cycle digital	8
VIII	Animated character turn around - Face - Full Body	4
IX	Basic Character Actions - Head turn - Expressions	4
X	Introduction to dialogue - Phrasing - Sound sync	6

Reference Books	1. The Animator's Survival kit (Richard Williams) 2. Disney Animation: The Illusion of Life 3. Acting for Animators 4. Cartoon Animation 5. Timing for Animation

S.Y.B.Voc. Semester III		
Title of the Course and Course Code	**2D CHARACTER ANIMATION (BVA-201) (Major-Theory)**	**Number of Credits: 04**

Course Outcomes (COs) On completion of the course, the students will be able to:	
CO1	Recall principles of animation.
CO2	Differentiate tools used for 2d animation – Traditional & digital
CO3	Carry out projects based on 2d Animations.
CO4	Compare various tools used for digital 2d animation.
CO5	Consider 12 principals of animation while making the 2d animations.
CO6	Create 2D characters and environments.

Unit No.	Title of Unit and Contents	No. of Lectures

1	Introduction to types of 2d Animation
	1. Traditional
	2. Digital
	   a. Vector Animation
	   b. Frame by frame digital 2d animation
		15

2	Animation techniques 1. Key frame Animation 2. In-between animation 3. Extremes 4. Break downs 3 ways for Animation 1. Straight ahead animation 2. Pose to pose animation 3. Combination of both	15
3	Walk cycles 1. Contact Pose 2. Passing Pose 3. Down Pose 4. Up Pose Types of Walk cycle 1. Human Side / Front 2. Quadruped / animal – Side / Front 3. Run Cycle	15

4	Basic Character Animations
	1. Expressions
	2. Exposure sheet
	3. Dialogue & lip Sync
	   a. Phrasing
	   b. Accent
	   c. Sound sync
		15

Learning Resources

1. "Cartoon Animation", Preston Blair, Walter T. Foster, Apple Press, Limited, Eighth Edition, ISBN 1560100842
2. "History of Animation": Facts and Figures, Bredson, Philps Cardiff, Pearson Publications,

1

S.Y.B.Voc. Semester IIIII		
Title of the Course and Course Code	**Animation in Media (BVA-202)** **Paper CODE: BVA-202**	**Number of Credits: 02**
	Course Outcomes (COs) **On completion of the course, the students will be able to:**	
CO1	Outline animation in media industry	
CO2	Compare different types of media	
CO3	Examine different media categories for animation uses	
CO4	Explain Internet and social media	
CO5	Review various media platforms	
CO6	Create a report on use of animation in media	

Unit No.	Title of Unit and Contents	No. of Lectures
1	**Print Media** 1. Newspaper 2. Magazine 3. Posters 4. Brochures 5. Banners 6. Pamphlets 7. Billboards 8. Packaging	6
2	**Broadcast Media** Television 1. News channels 2. Entertainment Channels 3. Sports Channels 4. Commercials 5. Adv campaigns 6.	6
3	**Films / Cinema** 1. Titles 2. Trailers 3. Special Effects 4. OTT platforms	6
4	**Internet** 1. Blogs 2. V-logs 3. Podcast 4. Websites	6
5	**Social Media** 1. Facebook 2. Instagram 3. Other social networking sites	6

F.Y. B.Voc. Semester III		
Title of the Course and Course Code	**SCRIPT WRITING (BVA-211)** **(Minor-Theory)**	**Number of Credits: 02**

Course Outcomes (COs)	
On completion of the course, the students will be able to:	
CO1	Student should understand the importance of script in the process of pre production.
CO2	To make the student enable to think from script writing point of view.
CO3	Student should learn about script writing style and to analyze any Audio Visual content Script.
CO4	To enable the pre production phase from ideas into script.

Unit No.	Title of Unit and Contents	No. of Lectures

1	**Introduction to Storytelling**
	    1.1 What is Storytelling
	    1.2 Types of Storytelling
	    1.3 Pre- Production Process
		4

2	**Narrative Techniques**
	    2.1 What is narration?
	    2.2 Narrative Structure
	    2.3 Narrative treatment of the space & time
		4

3	**Development of Script**
	    3.1 Idea and Concept Development
	    3.2 Character Development (Internal& External Features, Wants vs Needs, Obstacles, Stakes & Character Arc)
	    3.3 Character Psychology
	    3.4 Three act Structure
	    3.5 Visual treatment to a script
		4

4	**Script Formats and their style**
	    4.1 Scene heading
	    4.2 Parenthesis
	    4.3 Description
	    4.4 Scene Transition
	    4.5 Basic Idea of Shooting Script
	    4.6 Screenplay Structure (Screenplay Template)
		6

5	**Elements of Script**
	    5.1 Story premise
	    5.2 Theme
	    5.3 Plot
	    5.4 Style and tone
	    5.5 Structure of Scenes/ Chronology
		6

6	**The basic of dramaturgy**
	    6.1 The Nature of Conflict
	    6.2 Types of conflicts
		2

7	**Different Genre of script**
	    7.1 Genre include action, children, comedy, crime, drama, family, history, horror, romance, science fiction, teens and thriller
	    7.2 How to write a Synopsis
		4

S.Y.B.Voc. Semester III		
Title of the Course and Course Code	**VIDEO EDITING (BVA-212) (Minor - Practical)**	**Number of Credits: 02**

Course Outcomes (COs)	
On completion of the course, the students will be able to:	
CO1	Define terminology and concepts of Digital editing.
CO2	Classify principles of video production.
CO3	Apply compression schemes for various output.
CO4	Analyze Film sequences from editing point of view.
CO5	Compare various cuts used for video editing.
CO6	Produce Digital editing examples within the limits of premiere- pro.

Unit No.	Title of Unit and Contents	No. of Lectures

1	**Introduction to Digital Editing**
	    a. Introduction to digital editing
	    b. History and Evolution of Editing
	    c. Principal of Video Editing
	    d. Liner & Nonlinear Editing
		15

2	**Introduction to Editing Software (Premier Pro CC)**
	    a. Digital Video Editing Terminology and Basic Concepts
	      Measuring video time
	    b. Measuring frame size and resolution
	    c. Video data compression
	    d. Capturing video
	    e. Components of a video editing timeline
	    f. Output devices and video delivery technology
	    g. transitions, filters, sub clips
		10

3	**Aesthetics of Editing**
	    a. Aesthetics of Editing
	    b. Editing
	    c. Continuity match
	    d. Match cut
	    e. Pace and Rhythm
		6

4	**Fiction Video Editing: Basic Editing Techniques**
	    a. Capturing, Trimming
	    b. Assembling
	    c. Output
	    d. Transitions
	    e. Incorporating transitions into the editing process
	    f. Recognizing various standard transitions
		6

5	**Editing Styles**
	    a. Documentary Editing Style
	    b. Role of Sound in Video Editing
	    c. Sound Editing
	    d. Working with Multi Layers
		8

6	Dramatic Sequence, Action Sequence, Advanced Editing Techniques Titles and still graphics, Creating titles for video	8

Learning Resources:
Premiere Pro CS6 Digital Classroom. Author: Jerron Smith, AGI Creative Team

S.Y.B.Voc. Semester III		
Title of the Course and Course Code	**Story Telling for Animation (BVA-220)** Paper CODE: BVA-220 (OE)	**Number of Credits: 02**
Course Outcomes (COs) **On completion of the course, the students will be able to:**		
CO1	Define creative writing skills for Animated films.	
CO2	Explain Basic literary concepts.	
CO3	Apply writing theory for animation writing.	
CO4	Analyse reader Response, Theory Editing & Proofreading. Review Sources of	
CO5	Creativity from given books.	
CO6	Write a creative plot for creating animated films.	

Unit No.	Title of Unit and Contents	No. of Lectures

1	Finding ideas
	     1. Observation
	     2. Photos & drawings
	     3. Research
	     4. Brainstorm
	     5. People places & surrounding
		6

2	Character development
	     1. Age
	     2. Physical
	     3. Emotional
	     4. Social
	     5. Creative & Artistic
	     6. Moral, ethical & spiritual
		4

3	Character Profile
	     1. Name
	     2. Sex
	     3. Age
	     4. Appearance
	     5. Personality
	     6. Surrounding & Culture
	     7. Back story
		6

4	Target audience
	     1. Demographics
	     2. Geographic
	     3. Psychographic
	     4. Behavioral
		4

5	Story Theme	4

6	Script elements
	     1. Premise
	     2. Outline
		4

	3. Script 4. Dialogue		
7	Copy right & Legal aspects	2	

Reference:
1. How to write for Animation by: Jeffrey Scott
2. Writing for Animation & Development from script development to pitch be Jean Ann write

	S.Y.B.Voc. Semester III	
Title of the Course and Course Code	**Pre-Production - 1 (BVA-230)** **(VSC)**	**Number of Credits: 02**

	Course Outcomes (COs) **On completion of the course, the students will be able to:**
CO1	Outline pre-production process for animated films.
CO2	Discuss the storyboarding techniques and animatics.
CO3	Demonstrate details of character designing.
CO4	Compare various characters aspects in detail.
CO5	Review Story-Boards for animation.
CO6	Create concept art for animated film and a Character design from real life.

Unit No.	Title of Unit and Contents	No. of Lectures

1	Story Building
	    1. Concept creation
	    2. Character development
	    3. R&D
		5

2	Visual story telling
	    1. Intro to Illustrations
	    2. Intro to Concept Art
		5

3	Story boarding
	    1. Camera angles
	    2. Camera movements
	    3. Types of shots
	    4. Types of cuts
	    5. Scene building
	    6. Acting for Animation
	    7. Composition
	    8. Camera dynamics
	    9. Animatics
		20

4	Introduction to digital paining & Illustration
	    1. Basic Color theory
	    2. Values
	    3. Lighting
	    4. Character illustration
		15

5	Basic Visual development
	    1. Introduction to prop design
	    2. Introduction to location design
		15

Learning Recourses:

1. Storyboard Design Course by Giuseppe Cristiano ---- Barron's

2. How to write for Animation – Jeffery Scott- The Overlook Press Woodstock and New york 3. The Art of layout and storyboarding – Mark T. Byrn

Semester IV

S.Y.B.Voc. Semester IV		
Title of the Course and Course Code	**3D ANIMATION PRACTICAL (BVA-250)(MAJOR)**	**Number of Credits: 02**
	Course Outcomes (COs) **On completion of the course, the students will be able to:**	
CO1	Recall 3d Animation techniques and concepts.	
CO2	Illustrate tools used for 3d modelling & texturing.	
CO3	Demonstrate different types of modelling.	
CO4	Compare modelling topologies.	
CO5	Review different types of shaders and materials.	
CO6	Design various textured 3d models & get final renders.	

Unit No.	Title of Unit and Contents	No. of Lectures
1	Interior Modelling and Texturing – Hall / Kitchen	4
2	Character Modelling and texturing – Human body	4
3	Exterior Modeling and texturing - A bridge over River / Tower of Pisa	6
4	Props Modeling and texturing – Sword/ Gun	6
5	Car Modelling and texturing	6
6	Rigg inorganic model – Lamp / Car	4
7	Rigg spline movement: Wires, Tornados, reptiles etc	10
8	Rigg a Human Character with all joint controllers	10

9	Create a complete final scene with
	
	    a. Original Character
	    b. Texture
	    c. Rigged
	    d. Pose
	    e. Interior or exterior scene
	    f. Appropriate light setup
		10

Learning Recourses:

1. Autodesk Maya 2019 Basics Guide
2. Digital Lighting and Rendering (Voices That Matter) 3rd Edition- By Jeremy Brin 3. Digital Modeling ([digital]) 1st Edition- By William Vaughan
4. Advanced Maya Texturing and Lighting

S.Y.B.Voc. Semester IV		
Title of the Course and Course Code	**Introduction to 3D (BVA-251)(MAJOR)**	**Number of Credits: 04**

Course Outcomes (COs)
On completion of the course, the students will be able to:

CO1	Recall 3d Animation techniques and concepts.
CO2	Illustrate tools used for 3d modelling & texturing.
CO3	Demonstrate different types of modelling.
CO4	Compare modelling topologies.
CO5	Review different types of shaders and materials.
CO6	Design various textured 3d models & get final renders.

Unit No.	Title of Unit and Contents	No. of Lectures
1	Intro to 3d and Basic Interface Common used Tools Common used Operations Interior Modelling – Hall/Bedroom Character Modelling	15
2	Materials and Hyper shade Types of mapping Making Complex materials	10
3	Animating Camera Paint Effects Lighting setup and type of lights 3 Point light system Animating Lights	6
4	Rendering Concept and setup Arnold Render System Making an Interior with character (Basic pose) and rendering with Arnold	6
5	Introduction to rigg Understanding Rigging in 3d software Rig inorganic models like lamp, cranes etc Spline rigg: Wires, reptiles etc	8
6	Making Human Body ready for Rig Putting Joints and Renaming Putting IK Handles and Pole Vectors Inverse Foot with Set Driven keys Spine Control	8
7	Fist controller with Set Driven key Neck and Head controller Eyes Controller Master Controller Types of Bind-Soft & Rigid Binding the character Paint Weights	7

Learning Resources:

1. Rig it Right! Maya Animation Rigging Concepts, 2nd edition- By Tina O'Hailey

2. Animation Methods: Rigging Made Easy: Rig Your First 3D Character

S.Y.B.Voc. Semester IV		
Title of the Course and Course Code	**UI Design** **(BVA-252) (Major - Theory)**	**Number of Credits: 02**
Course Outcomes (COs) **On completion of the course, the students will be able to:**		
CO1	Define principles of UI Design in order to design with intention	
CO2	Explain the MVC (model-view-controller) design pattern and its importance to sound user interface software design and implementation	
CO3	Apply a user centered design process (design strategy development that provides solutions to meet business and user goals) in the creation of basic to complex software applications	
CO4	Explain about unsatisfactory user interface design and how the observed problems could have been avoided by following sound user interface design principles	
CO5	Compare between usability and user experience	
CO6	Design and develop user interfaces optimized for a range of devices and platforms	

Unit No.	Title of Unit and Contents	No. of Lectures

1	**Design Principles**
	  a. Usability - Dimensions of Usability
	  b. Learnability - Learning Approaches, Interaction Styles, Conceptual Models
	  c. Efficiency - Chunking, Pointing and Steering, Shortcuts
	     Heuristic Evaluation
		15

2	**Design Techniques**
	  a. User Centered Design - Iterative design, Needfinding, Brainstorming Safety - Human Error, Error Prevention, Error Messages
	  b. Prototyping - Prototype fidelity, Kinds of prototypes
	  c. User Testing - Kinds of User Tests, Ethics, Formative Evaluation
	  d. Graphic Design - Simplicity, Contrast & Visual Variables
	  e. More Safety - User Control and Freedom, Undo
		10

3	**Implementation techniques**
	  a. UI Software Architecture - View Tree and the Listener Pattern,
	  b. Model - View, GUI, Implementation Approaches
	  c. Input - Input Events, Event Dispatch and Propagation, State Machines
	  d. Output - Output Representations, Drawing, Strokes, Pixel, Animation Principles, Animation Implementation, Debugging Output
	  e. Layout - Debugging Output, White Space, Alignment and Grids
	  f. Color - Human Vision, Color Models, Design Guidelines
	  g. Typography - Readability, Font, Spacing, Typeface, Font Selection
		5

Books -

1. Wilbent O. Galitz, "The Essential Guide to User Interface Design", John Wiley & Sons, 2007

2. Ben Sheiderman, "Design The User Interface", Pearson Education, 1998
3. Alan Cooper, "The Essential Of User Interface Design", Wiley - Dream Tech Ltd., 2002
4. Everett N. McKay, "UI is Communication: How to Design Intuitive, User Centered Interfaces by Focusing on Effective Communication 1st Edition", 2013
   5. Jenifer Tidwell, "Designing Interfaces", O'Reilly Publication, 2005

Web References:
1. https://userbrain.net
2. http://www.tutorials.com

E-Resources:
1. http://web.mit.edu/6.813/www/sp17/
   2. https://course.ccs.neu.edu/cs5500sp17/09-UX.pdf

Title of the Course and Course Code	Drawing for Animation (BVA-261) (Minor - Theory)	Number of Credits: 02

Course Outcomes (COs)
On completion of the course, the students will be able to:

CO1	Recall the basics of drawing and material handling.
CO2	Illustrate the importance of elements of designs
CO3	Demonstrate the usage of positive and negative space in a design composition.
CO4	Identify, analyze color theory and color harmony in drawing and sketching.
CO5	Review different type of art forms.
CO6	Create backgrounds and compositions with the help of color theory and color harmony.

Unit No.	Title of Unit and Contents	No. of hours

I	Advance human anatomy
	  1. Portrait
	    a. Pencil shading
	    b. Charcoal
	    c. Color
	  2. Realistic figure drawing
	    a. Pencil shading
	    b. Charcoal
	    c. Color
	  3. Animal Drawing
		10

II	1. Mannequin poses 2. Action poses 3. Time sketch 4. Live drawing from models	5

III	Color theory (Traditional)
	  1. Values
	  2. Different Painting mediums
	    a. Pencil shading
	    b. Charcoal
	    c. Oil pastel
	    d. Poster color
	    e. Acrylic / Water color
	    f. Canvas & hand made paper
	  3. Manmade drawing & painting
	  4. Nature drawing & painting
	  5. Face
	  6. Basic lighting & rendering
		10

IV	Figure drawing for animation
	  1. Line of action
	  2. Gesture drawing
	  3. Force drawing
	  4. Time poses
		5

Learning Resources:
1. Figure drawing made easy
2. Figure drawing for all its worth: Andrew lummis

3. Drawing the head & hands: Andrew lummis
4. Figures in action: Andrew lummis
5. Force: Dynamic live drawing for animators

<table>
<tr><td colspan="3" align="center">**S.Y.B.Voc. Semester IV**</td></tr>
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Title of the Course and Course Code	Pre-production - 2 (BVA-262) (Minor - Practical)	Number of Credits: 02

	Course Outcomes (COs) On completion of the course, the students will be able to:
CO1	Outline pre-production process for animated films.
CO2	Discuss the storyboarding techniques and animatics.
CO3	Demonstrate details of character designing.
CO4	Compare various characters aspects in detail.
CO5	Review Story-Boards for animation.
CO6	Create concept art for animated film and a Character design from real life.

Unit No.	Title of Unit and Contents	No. of Lectures
1	**Feature film** 1. Character 2. Prop Design a. Objects b. Vehicles c. Weapons 3. Asset 4. Location a. Layouts b. Background c. Isometric location	15
2	**Game** 1. Character 2. Prop Design a. Objects b. Vehicles c. Weapons 3. Asset 4. Location a. Layouts b. Background c. Isometric location	15
3	**TV Series / Cartoons** 1. Character 2. Prop Design a. Objects b. Vehicles c. Weapons 3. Asset 4. Location a. Layouts b. Background c. Isometric location	15
4	Color scripting & Color keys 1. Thumbnail painting	15

	2. Different lighting conditions / moods / colors 3. Setting up a Color Pallet & Theme	

Learning Resources:

1. Figure drawing made easy
2. Figure drawing for all its worth: Andrew lummis
3. Drawing the head & hands: Andrew lummis
4. Figures in action: Andrew lummis
5. Force: Dynamic live drawing for animators.

S.Y.B.Voc. Semester IV		
Title of the Course and Course Code	**Introduction to Game Design (BVA-270) (OE)**	**Number of Credits: 02**
Course Outcomes (COs) **On completion of the course, the students will be able to:**		
CO1	Describe gaming industry and its pipeline	
CO2	Explain different structures in gaming industry	
CO3	Carry out Production & post production of the game project.	
CO4	Compare different game art styles	
CO5	Review Production & post production of games	
CO6	Build a detailed concept for board game or computer game	

Unit No.	Title of Unit and Contents	No. of Lectures
1	Introduction to gaming Industry	2
2	a. Introduction to Gaming b. Introduction of games c. Classification of games d. Game Development Process e. Structure and functioning of gaming company f. A simple Game Design Document (GDD) for a Game.	10
3	Brainstorming for game ideas	4
4	Board games and concepts	4
5	a. Pre-production of Gaming b. Pre-production - concept and idea c. Concept Art Creation d. Storyboard e. Script Writing for Game Production	10

Reference Books:

The Art of Game Design: A Book of Lenses - Jesse Schell. Publisher: CRC Press (12th September 2008). ISBN-10: 0123694965 ISBN-13: 978-0123694966.

<table>
<tr><th colspan="3">S.Y.B.Voc. Semester IV</th></tr>
<tr><td>Title of the Course and Course Code</td><td>Motion Graphics
(BVA-290) (SEC)</td><td>Number of Credits: 02</td></tr>
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<table>
<tr><th colspan="2">Course Outcomes (COs)
On completion of the course, the students will be able to:</th></tr>
<tr><td>CO1</td><td>Recall history & utility of motion graphics.</td></tr>
<tr><td>CO2</td><td>Compare various tools of motion graphics</td></tr>
<tr><td>CO3</td><td>Execute various compositing techniques.</td></tr>
<tr><td>CO4</td><td>Identify appropriate tools required for motion graphics specific projects.</td></tr>
<tr><td>CO5</td><td>Determine motion graphics examples based on target audience</td></tr>
<tr><td>CO6</td><td>Create motion graphic videos.</td></tr>
</table>

Unit No.	Title of Unit and Contents	No. of Lectures
1	a. What is Motion graphics and its history? b. Motion Graphics in Film & Television c. Different tools available for Motion Graphics d. What is Composition, Composition Settings and its principles	5
2	a. Introduction to layers & its types b. Importing, Exporting and Nesting c. Text animation d. Stroke Animation e. Adding subtitles and Credits f. Creating Titles Using animation & Text presets	10

3	Shape Animation
	a. Difference between mask & shape
	b. All types of shapes
	c. Animate option under shape
	  1. Trim Path
	  2. Repeater
	  3. Colors and options
	  4. Offset Animation
		15

4	a. Tracking
	  1. One point
	  2. Two point
	  3. 4 point
	  4. Camera tracking
	  5. Stabilization
	b. Color Correction & Color Grading
	c. 3d Projection
	d. Rotoscopying/ Masking
	e. Chroma Keying
		15

5	Introduction to expressions
	  1. Wiggle
	  2. Loop out / in
	  3. Time etc
		10

6	Puppet Tool	5

Learning Resources:

1. The Art and Science of Digital Compositing: Techniques for Visual Effects. By Ron Brinkmann
2. After Effects for Designers: Graphic and Interactive Design in Motion
3. Creating Motion Graphics with After Effects: Essential and Advanced Techniques - By Chris Meyer, Trish Meyer

S.Y.B.Voc. Semester IV		
Title of the Course and Course Code	**Field Project (BVA-295) (FP)**	**Number of Credits: 02**
Course Outcomes (COs) On completion of the course, the students will be able to:		
CO1	Describe the different skills, attitude and knowledge to understand the professionalism in the design industry to build & design an art exhibition	
CO2	Discuss various aspects & culture of the Industry in view to maintain quality standards.	
CO3	Implement the confidence, presentation skills and logical thinking while working on art exhibition	
CO4	Differentiate between the academics and professional work culture in timely delivery of final execution.	
CO5	Compare and contrast various art work to work for the exhibition	
CO6	Combine the techniques to enhance oneself as a thorough animation professional	

Unit No.	Title of Unit and Contents	No. of Lectures

1	Guidelines for Animation Field Project
	
	Art Exhibition for Animation
	
	1. Theme based exhibition in an art gallery
	2. Group Activity combined for all students
	3. Create following types of art works for the exhibition
	
	   a. Paintings
	   b. Sketches
	   c. Photography
	   d. 3d structures
	   e. Wire structures
	   f. Structures using various types of materials
	   g. Art from waste
	   h. Software based artworks
		30