

**Ahmednagar Jilha Maratha Vidya Prasarak Samaj's
New Arts, Commerce, and Science College, Ahmednagar
(Autonomous)
(Affiliated to Savitribai Phule Pune University, Pune)**



**National Education Policy (NEP)
Choice Based Credit System (CBCS)**

**Programme Skeleton and Syllabus of
Animation (Minor) - II Year**

**Implemented from
Academic Year 2023-24**

New Arts, Commerce and Science College, Ahmednagar (Autonomous)

Board of Studies in Animation

Sr. No.	Name	Designation
1.	Prof. Santosh M Thube	Chairman
2.	Dr. Yogesh Deshpande	Academic Council Nominee
3.	Dr. Pallavi S Meshram	Academic Council Nominee
4.	Dr. Sameer S Sahasrabudhe	Vice Chancellor Nominee
5.	Mr. Deepak N Chaudhari	Alumni
6.	Prof. Binoj V John	Industry Expert
7.	Prof. Manohar B Gobare	Member (co-opt)
8.	Prof. Sameer S Nerlekar	Member (co-opt)
9.	Prof. Madhura M Khoje	Member (co-opt)

1. Prologue/ Introduction of the programme:

B.Sc. Animation or Bachelor of Science in Animation is an undergraduate Animation and multimedia Course. This program offers advanced skills in Computer Animation concepts and technique. BSc Animation or Bachelor of Science in Animation deals with the process of drawing, designing, and preparation of photographic sequences which are integrated with gaming and multimedia. The 3-year six semesters course is offered at our college.

This course covers from Basics of animation. 2D, 3D, Graphic Designing, SFX, VFX, Gaming, Web designing, Editing, Compositing. A career in B. Sc. in Animation or a career in VFX offers quite a number of possibilities as the job scene is quite fertile in India. The scope of animation is promising because the program is designed to offer an advanced learning experience and hone their skills.

In this modern age, presentation has a lot importance. Advertising perform most vital role in all businesses. In order to make attractive advertisement it need animation design. Animation is not limited to develop cartoon film. Now animation has wide spectrum due to computer technology. Using computer technology animation is used in 3D modelling of building, Robotics, Artificial Intelligence, E Learning, online Education, Interior Design, Website Development, Decoration, Gaming, Security, modelling, Logo designing, Poster

design, Advertisement, Conferencing ideology presentation, Fashion Designing, Visual Effects in film making and entertainment etc.

Animation is the field where man power is needed, but with skill that has human's bright imagination and computer technology together. In computer technology gaming is most demanded field in which it requires extra ordinary brilliance of human resources which is not available in most IT industries. In Animation field there are bright chances of self-employment.

We are proud that, we are having best Animation Center in Savitribai Phule University in all respects including the strength of students, quality and quantity, qualified faculty and lab facilities.

2. Programme Outcomes (POs)

Students enrolled in the program complete a curriculum that exposes and trains students in a full range of essential skills and abilities. They will have the opportunity to master the following objectives.

- I. To familiarize the students with various approaches, methods and techniques of Animation Technology.
- II. To develop competencies and skills needed for becoming an effective Animator.
- III. Mastering traditional & digital tools to produce stills and moving images.
- IV. Exploring different approaches in computer animation.
- V. To enable students to manage Animation Projects from its Conceptual Stage to the final Product creation.
- VI. To train students in applying laws of human motion and psychology in 2-D or 3-D Characters.
- VII. To develop expertise in life-drawing and related techniques.
- VIII. To apply Audio and Video Production Techniques to an Animation Project.

Credit Distribution: B.Sc. Animation including Minor and OE and other courses.

	Type of Courses	III Yr	IV Yrs (Honours)	IV Yrs Research
Major Marathi	Discipline-Specific Courses (DSC)	46	74	66
	Discipline Specific Elective (DSE)	08	16	16
	Skill Enhancement Courses (SEC)	06	06	06
	Vocational Skill Courses (VSC)	08	08	08
	On-Job Training (OJT)	04	08	04
	Field Project (FP)	04	04	04
	Community Engagement and Service (CEP)	02	02	02
	Research project	00	00	12

	Research Methodology	00	04	04
	Indian Knowledge System	02	02	02
	Total (I, II and III Year)	80	124	124
Minor	Minor	20	20	20
Other Courses	Open Elective (OE)/ Multidisciplinary Courses	12	12	12
	Co-Curricular Courses	08	08	08
	Ability Enhancement Courses	08	08	08
	Value Education Courses	04	04	04
	Total	132	176	176

Programme Framework (Courses and Credits): B.Sc. Animation (Minor)

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	I	4.5	MNR-1	BS-AN101	Foundation of Art	03
2.	I	II	4.5	MNR-2	BS-AN201	Human Anatomy Study	03
3.	II	III	5.0	MNR-3	BS-AN301	Raster Graphics	03
4.	II	IV	5.0	MNR-4	BS-AN401	Vector Graphics	03
5.	III	V	5.5	MNR-5	BS-AN501	Video Composting	04
6.	III	VI	5.5	MNR-6	BS-AN601	Video Editing	04
							20

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's
New Arts, Commerce and Science College, Ahmednagar
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Syllabus
B.Sc. Animation (Minor)

Title of the Course: Raster Graphics								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
MNR-3	BS-AN301 T/P	02	01	03	60	30	70	100

Learning Objectives:

1. Demonstrate and exercise use of the elements of design.
2. Use software tools and processes from a variety of creative perspective.
3. To edit images and design variety of media products.

Course Outcomes (Cos)

1. Apply design principles in the ideation, development, and production of visuals.
2. Produce creative works that demonstrate innovation in concepts
3. Giving exposure to effective visual expression.

Detailed Syllabus: Example

Unit I: Understanding concepts of raster, how these two are used various designs, introducing the various raster tools: Paint, Photoshop, and Introduction Variations in Photoshop Software. (02 Lecture)

1. History of Photoshop
2. Adobe Photoshop cs2
3. Adobe Photoshop cs3
4. Adobe Photoshop cs4
5. Adobe Photoshop cs5
6. Adobe Photoshop cs6
7. Adobe Photoshop cc ...

Unit II: Work Environment of Photoshop CC (02 Lecture)

1. Looking at the Work Area
2. Working in 64- and 32-bit modes
3. Customizing Preferences & Keyboard Shortcuts
4. Using the tools & Tool Option

Unit III: Using Adobe Bridge

(02 Lecture)

1. Viewing & Editing Files
2. Reading Metadata & Applying Keywords
3. Searching & Filtering
4. Favorites & Collections
5. Introducing Task Automation
6. Exploring Mini Bridge

Unit IV: Working with Selections

(03 Lecture)

1. About selecting & selection tools
2. Rectangular & Oval selections
3. Lasso tool, Magnetic Lasso Tool, Polygonal Lasso Tool
4. Magic Wand
5. Quick Selection Tool
6. Feathering - softening selection edges
7. Selecting by Color

Unit V: Understanding Layers

(03 Lecture)

1. Background layers
2. Creating layers
3. Rearrange & editing layers
4. Opacity & Layer Blending Modes
5. Linking Layers
6. Applying Layer Styles
7. Flattening Layers
8. Layer Comps
9. Duplicating & Aligning Layers
10. Layer Groups

Unit VI: Transforming

(05 Lecture)

1. Free Transform
2. Mathematical transforms: Flip, Rotate, Arbitrary
3. Scale, Skew, Distort, Perspective
4. Transform with Warp
5. Canvas Rotation

Unit VII: Basic Photo Corrections

(05 Lecture)

1. Understanding Images: Raster & Vector
2. Image Resolution
3. Exposure & Balance
4. Tonal values & Photography
5. Image Adjustments Options
6. Working with the Adjustments Panel
7. Histogram

8. Levels Dialog Box
9. Curves Dialog Box
10. Straightening & Cropping
11. Using Automatic & Manual Adjustments - Contrast, Shadows & Highlights,
12. Hue & Saturation
13. Replacing colors
14. Dodge, Sponge & Burn tools
15. Black & White Adjustment Feature

Unit VIII: Retouching & Repairing

(02 Lecture)

1. Clone Stamp Tool & Clone Panel Options
2. Pattern Tool
3. Spot Healing Brush
4. Healing Brush & Patch Tools
5. Red Eye Removal
6. Separate Layer retouching
7. Layers - Auto Align Layers
8. Spherical Alignment
9. Layers -Auto Blend Layers
10. Content Aware Healing & Fills
11. Typography
12. Adding Type
13. Character & Paragraph settings
14. Justification & Hyphenation
15. Tracking, Kerning & Leading
16. Warping Type
17. Type on a Path Vertical Type

Unit IX: Color Modes

(02 Lecture)

1. Creating New Color Swatches
2. Creating Color Blends/ Gradients
3. Applying color & gradients
4. Hue Sampling Ring

Unit X: Brushes

(02 Lecture)

1. Working with brushes
2. Changing Brush Options

Unit XI: Correcting Digital Photographs

(02 Lecture)

1. About Camera Raw
2. Processing Files in Camera Raw
3. Merging exposure and application of advanced color correction
4. Correcting digital photographs in Photoshop
5. Correcting image distortion
6. Working with depth of field

7. Quick Masks & Gradient Masks

Unit XII: Creating & Editing Quick Masks

(02 Lecture)

1. Saving selections as Masks
2. Alpha Channels
3. Loading Masks as selections
4. Editing Masks
5. Extracting Images
6. Applying Filter Effects to Masked selections
7. Creating Gradient Masks

Unit XIII: Vector Drawing: Paths

(02 Lecture)

1. Pen Tool
2. Using Paths
3. scalable Objects
4. Shape Layer
5. Importing Smart Objects (Illustrator/ Acrobat)
6. Complex Path editing
7. Compound Paths
8. Saving Paths
9. Clipping & Work Paths
10. Filling & Stroking paths, selections

Unit XIV: Filters

(02 Lecture)

1. Using filters
2. Gamut & Workflow aspects
3. Stacking Orders & Saving multiple filters
4. Fading Filters (Opacity & Blend Modes)
5. Smart Filters
6. Creating, Saving & Editing Smart filters

Unit XV: Working with 3D images

(02 Lecture)

1. Creating a 3D shape from a layer
2. Manipulating 3D objects
3. Using 3D panels to adjust lighting and surface textures
4. Merging 2D onto 3D layers
5. Importing 3D Files
6. Painting onto a 3D object
7. Using Repoussé to create 3D text

Unit XVI: What is New?

(02 Lecture)

1. All-new Smart Sharpen
2. Intelligent up sampling
3. Camera Shake Reduction
4. Editable rounded rectangles
5. Improved 3D painting
6. Improved type styles
7. Improved 3D Scene panel

8. Improved 3D effects

Practical list:

1. Adding and removing elements from background
2. Create any product. (Biscuit Cover, Chocolate Cover, Cream Cover, Kurkure Cover, lays Cover, etc.)
3. Converting black and white photo to Color
4. Removing scratches and restoring old photos
5. Coloring Cartoon/Comic Character
6. Coloring Comic Page/Pages
7. Photo Manipulation
8. Create Typographical Text
9. Create any 3D Modeling with Adobe Photoshop
10. Digital Painting

Suggested Readings:

Reference Books:

- 1) **The complete beginners guide to Adobe Photoshop.**

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Syllabus
B.Sc. Animation (Minor)

Title of the Course: Vector Graphics								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
MNR-4	BS-AN401 T/P	02	01	03	60	30	70	100

Learning Objectives:

Course Outcomes (Cos)

1. Have a proficiency in a broad range of design skills pertaining to publication design
2. Have a basic understanding of typography, color, layout, tables, images, graphics, styles and interactive elements.
3. Be able to navigate Adobe Workspace, Set up a document, and work with pages.
4. Understand how to work with frames, importing & linking graphics
5. Be able to import and edit text, work with typography and style sheets
6. Efficiently use color, transparencies, and tables
7. Have an understanding of output, exporting and packaging.

Detailed Syllabus: Example

Unit I: INTRODUCTION

(12 Lectures)

1. Interface Introduction to Adobe Illustrator
2. Panels & Workspaces in Adobe Illustrator
3. Art boards in Adobe Illustrator
4. Vector basics / Selection & Direct selection tool
5. Fill & Stroke effects in Adobe Illustrator
6. Using Color / Swatches / Pantone's / Gradients & more
7. Handy Tips / Things to know for beginners

Unit II: ESSENTIAL PRACTISE

(10 Lectures)

1. Creating shape vectors
2. Grouped vectors & Compounding vector shapes

3. Drawing with the Pen tool / Brush tool / Pencil tool & more
4. The Blob brush tool & Eraser tool
5. Type tools in Adobe Illustrator

Unit III: CREATE A PROJECT

(06 Lectures)

1. Setting up a document / Placing in a drawing / Sketch
2. Image trace tool for sketches in Adobe Illustrator

Unit IV: Drawing

(08 Lectures)

1. Tracing a hand drawn sketch & converting to vector artwork
2. Compounding vector shapes & strokes / Pathfinder Tool

Unit V: Coloring & Text

(02 Lectures)

1. Coloring a vector drawing in Adobe Illustrator
2. Adding type to a poster design in Adobe Illustrator

Unit VI: Finishing & Exporting

(02 Lectures)

1. Exporting ready for print in Adobe Illustrator

Suggested Readings:

Reference Books:

1) **The complete beginners guide to Adobe Illustrator**

Practical List:

1. Shapes Composition
2. Create tattoo Designs
3. Create own text A to Z
4. Logo Design
5. Branding Visiting Card, Letter head, Envelop Design
6. Brochure Design
7. Advertise Design
8. Product modeling illustration
9. Car Modeling
10. Character Design