

**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  
B.Sc. Animation (Major)**

**Implemented from  
Academic Year 2023-24**

**Credit Distribution: B.Sc. Animation (Major) 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
	<b>Total (I, II and III Year)</b>	<b>80</b>	<b>124</b>	<b>124</b>
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
	<b>Total</b>	<b>132</b>	<b>176</b>	<b>176</b>

**B. Sc. Programme Framework: Credit Distribution**

Year	Semester	Level	Major										Minor	OE	CC	AEC	VEC	Total	
			DSC		DSE		SEC		VSC		FP/OJT /IN/CEP								IKS
I	I	4.5	T	P	T	P	T	P	T	P	T	P		T/P	-	-	-	-	-
I	II	4.5	4	2	-	-	-	2	-	-	-	-	2	03	3	2	2	2	22
			6	-	-	-		2	-	2	-	-		03	3	2	2	2	22
Exit Option: Award of UG Certificate in Major with 44 credits and an additional 4 credit core NSQF course /Internship or Continue with Major and Minor																			
II	III	5.0	6	2	-	-		2	-	-	-	2		03	3	2	2	-	22
II	IV	5.0	6	2	-	-		-	-	2	-	2		03	3	2	2	-	22
Exit Option: Award of UG Diploma in Major with 88 credits and an additional 4 credit core NSQF course /Internship or Continue with major and minor																			
III	V	5.5	8	2	2	2	-	-	-	2		2		04	-	-	-	-	22
III	VI	5.5	6	2	2	2	-	-	-	2		4		04	-	-	-	-	22

Exit Option: Award of UG Degree in Major and Minor with 132 credits or continue with Major for a 4-year Degree																			
IV	VII	6.0	8	6	2	2	RM-4	-	-	-	-		-	-	-	-	-	-	22
IV	VII I	6.0	8	6	2	2	-	-	-	-	-	4		-	-	-	-	-	22
Four Year UG Degree(Honours) with Major and Minor with 176 credits																			
IV	VII	6.0	6	4	2	2	RM-4	-	-	-	-	4		-	-	-	-	-	22
IV	VII I	6.0	6	4	2	2	-	-	0	-	-	8		-	-	-	-	-	22
Four Year UG Degree (Honours with Research) with Major and Minor with 176 credits																			

## B. Sc. Programme Framework: Course Distribution

Year	Semester	Level	Major											Minor	OE	CC	AEC	VEC	Total
			DSC		DSE		SEC		VSC		FP/OJT /IN/CEP		IKS						
I	-	-	T	P	T	P	T	P	T	P	T	P		T	P	-	-	-	-
I	I	4.5	2	1	-	-	-	1	-	-	-	-	1	1	1	1	1	1	10
	II	4.5	2	-	-	-	-	1	-	1	-	-		1	1	1	1	1	09
Exit Option: Award of UG Certificate in Major with 44 credits and an additional 4 credit core NSQF course /Internship or Continue with major and minor																			
II	III	5.0	2	1	-	-	-	1	-	-	-	-	1	1	1	1	1	-	09
II	IV	5.0	2	1	-	-	-	-	-	1	-	1		1	1	1	1	-	09
Exit Option: Award of UG Diploma in Major with 88 credits and an \additional 4 credit core NSQF course /Internship or Continue with major and minor																			
III	V	5.5	2	1	1	1	-	-	-	1		1		1	-	-	-	-	08
III	VI	5.5	2	1	1	1	-	-	-	1		1		1	-	-	-	-	08
Exit Option: Award of UG Degree in Major and Minor with 132 credits or continue with Major for a 4-year Degree																			

IV	VII	6.0	3	3	1	1	0	1	-	-	-	-		-	-	-	-	-	09
IV	VII I	6.0	3	3	1	1	-	-	-	-	-	1		-	-	-	-	-	09
Four Year UG Degree(Honours) with Major and Minor with 176 credits																			
IV	VII	6.0	2	2	1	1	0	1	-	-	-	1		-	-	-	-	-	08
IV	VII I	6.0	2	2	1	1	-	-	-	-	-	1		-	-	-	-	-	07
Four Year UG Degree (Honours with Research) with Major and Minor with 176 credits																			

**Programme Framework (Course Distribution): B.Sc. Animation (Major)**

Year	Semester	Level	Major											Total	
			DSC		DSE		SEC		VSC		FP/OJT /IN/CEP/PR		IKS		
			T	P	T	P	T	P	T	P	T	P	T	T	P/PR
I	I	4.5	2	1	-	-	-	1	-	-	-	-	01	03	02
I	II	4.5	2	-	-	-		1	-	1	-	-		02	02
II	III	5.0	2	1	-	-		1	-	-	-	1		02	03
II	IV	5.0	2	1	-	-		-	-	1	-	1		02	03
III	V	5.5	2	1	1	1	-	-	-	1		1		03	04
III	VI	5.5	2	1	1	1	-	-	-	1		1		03	04
B.Sc. Honours															
IV	VII	6.0	3	3	1	1	RM-1		-	-	-	-		05	04
IV	VIII	6.0	3	3	1	1	-	-	-	-	-	1		04	05
B.Sc. Honours with Research															
IV	VII	6.0	2	2	1	1	RM-1		-	-	-	1		04	04
IV	VIII	6.0	2	2	1	1	-	-	-	-	-	1		03	04

**Programme Framework (Credit Distribution): B.Sc. Animation (Major)**

Year	Semester	Level	Major											Total
			DSC		DSE		SEC		VSC		FP/OJT /IN/CEP/RP		IKS	
			T	P	T	P	T	P	T	P	T	P	T	
I	I	4.5	4	2	-	-	-	2	-	-	-	-	02	10
I	II	4.5	6	-	-	-	-	2	-	2	-	-		10
II	III	5.0	6	2	-	-	-	2	-	-	-	2		12
II	IV	5.0	6	2	-	-	-	-	-	2	-	2		12
III	V	5.5	8	2	2	2	-	-	-	2		2		18
III	VI	5.5	6	2	2	2	-	-	-	2		4		18
IV	VII	6.0	8	6	2	2	RM-4		-	-	-	-		22
IV	VIII	6.0	8	6	2	2	-	-	-	-	-	4		22
IV	VII	6.0	6	4	2	2	RM-4	-	-	-	-	4		22
IV	VIII	6.0	6	4	2	2	-	-	-	-	-	8		22

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

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	I	4.5	DSC-1	BS-AN111T	Basics of Animation-I	02
2.	I	I	4.5	DSC-2	BS-AN112T	Production Process	02
3.	I	I	4.5	DSC-3	BS-AN113P	Foundation of Art	02
4.	I	I	4.5	SEC-1	BS-AN114P	Digital Graphics	02
5.	I	I	4.5	IKS-1	BS-AN115T	Indian Art and Paintings	02
6.	I	II	4.5	DSC-4	BS-AN121T	Basics of Animation-II	03
7.	I	II	4.5	DSC-5	BS-AN122T	Stop Motion Animation	03
8.	I	II	4.5	SEC-2	BS-AN123P	3D Visualization	02
9.	I	II	4.5	VSC-1	BS-AN124P	2D Animation	02
10.	II	III	5.0	DSC-6	BS-AN231T	Design Principle	03
11.	II	III	5.0	DSC-7	BS-AN232T	Digital Technologies	03
12.	II	III	5.0	DSC-8	BS-AN233P	3D Production	02
13.	II	III	5.0	SEC-3	BS-AN234P	Animation Technique	02
14.	II	III	5.0	FP-01	BS-AN235P	Vector Graphics	02
15.	II	IV	5.0	DSC-9	BS-AN242T	Augmented & Virtual Reality	03
16.	II	IV	5.0	DSC-10	BS-AN242T	Camera Technique	03
17.	II	IV	5.0	DSC-11	BS-AN243P	3D Sculpting	02
18.	II	IV	5.0	VSC-2	BS-AN244P	Motion Graphics	02
19.	II	IV	5.0	CEP-01	BS-AN245P	Graphics Art	02
20.	III	V	5.5	DSC-12	BS-AN351T	Cyber Security	04
21.	III	V	5.5	DSC-13	BS-AN352T	Artificial Intelligence	04
22.	III	V	5.5	DSC-14	BS-AN353P	Game Design	02
23.	III	V	5.5	DSE-01	BS-AN355T	Concept Art	02

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24.	III	V	5.5	DSE-02	BS-AN356P	Digital Editing	02
25.	III	V	5.5	VSC-3	BS-AN357P	VFX-I	02
26.	III	V	5.5	FP-02	BS-AN358P	User Interface	02
27.	III	VI	5.5	DSC-15	BS-AN361T	Digital Marketing	03
28.	III	VI	5.5	DSC-16	BS-AN362T	Printing Technology	03
29.	III	VI	5.5	DSC-17	BS-AN363P	Game Production	02
30.	III	VI	5.5	DSE-03	BS-AN364T	New Media & Research	02
31.	III	VI	5.5	DSE-04	BS-AN365P	VFX-II	02
32.	III	VI	5.5	VSC-4	BS-AN366P	Internship	02
33.	III	VI	5.5	OJT-01	BS-AN367P	Project	04

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**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: At least one page**

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.



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

<b>Title of the Course: Basics of Animation-I</b>								
<b>Year: I</b>				<b>Semester: I</b>				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-1	BS-AN111T	02	00	02	30	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

1) This course will offer skill development in the use of software to develop storyboards and 2-dimensional animation including creating, importing and sequencing media elements to create multi-media presentations.

Emphasis will be on conceptualization, creativity, and visual aesthetics.

2) This course takes the students through various aspects of animation using a variety of 2 dimensional software.

3) Developing concepts, storyboarding and production of several 2 dimensional animations will be accomplished.

**Detailed Syllabus:**

**Unit I: History of Animation – World (06 lectures)**

1. American Animation: Disney (Beginning of animation)
2. Russian Animation: Soyuz Multifilm
3. Other countries animation

**Unit II: History of Animation – India (06 lectures)**

1. Films Division
2. Bhimsain, Ram Mohan, Ajit Rao, NID

**Unit III: Animation Glossary (5 lectures)**

1. Terms used in 2D Animation

- a. Key frames, storyboard, In-between, staging, character design, backgrounds, sound breakdown, dope sheet etc.
2. Terms used in 3D Animation & VFX, Modeling, Rigging...

#### **Unit IV: Types of Animation**

**(8 lectures)**

1. Traditional Animation
2. 2D Animation
3. 3D Animation
4. Stop Motion Animation
5. Motion Graphics

#### **Unit V: Basic Principles of Animation**

**(08 lectures)**

1. Explain the Basic Principles
2. Explain with Acting

#### **Unit VI: Role of Audio in Animation.**

**(05 lectures)**

1. Background Music.
2. Voice over.
3. Foley Track.

#### **Unit VII: Appreciation of 6 all-time classic animation films**

**(02 lectures)**

- Demonstrate the shots, have discussion, explain details of the film

#### **Suggested Readings/Material:**

1. 1. The Complete Animation course by Chris Patmore, Barons Educational Series (New York)
2. Anatomy of the Artist – Thompson & Thompson
3. The Animator's Survival Kit by Richard E. Williams (Author)
4. The ILLUSION OF LIFE: DISNEY ANIMATION (Disney Editions Deluxe) by Frank Thomas

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**Syllabus**  
**B.Sc. Animation (Major)**

Title of the Course: Production Process								
Year: I				Semester: I				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical					
						CIE	ESE	Total
DSC-2	BS-AN112T	02	00	02	30	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

- a. Through this course students can learn what are the basics for developing a animation short film or real time film. Participate in the planning and implementation of animation projects.
- b. Understanding the concepts of storyboarding and its details. Apply performance theory to the creation of animation.
- c. Produce layouts and backgrounds with attention to composition, perspective and color.

**Detailed Syllabus:**

**Unit I: Introduction to Production Process**

**(05 Lectures)**

- What is Production Process?
- What is Production Pipeline?
- Three steps of Production Pipeline (Pre-Production, Production, and Post Production)

**Unit II: Pre-Production-**

**(08 Lectures)**

- The Idea and Story-
- How to develop a story?
- Where Do Ideas Come From?
- The Script ,
  - Script Terms
    - ( e.g. Action, Angle on, Beat)
    - Script Process
    - Springboard (not as common)

- The 3-D Script vs. the 2-D Script
- Theatrical
- Direct-to-video
- Television
- Television Animation and Feature Animation

- The Purpose of Dialogue
- Revealing Character
- Moving the Story Along with Dialogue
- Characteristics of Dialogue

- Concept Art or Production Design (Three types of Concept Arts)

- Types of People
- Anthropomorphism
- Personality
- Appeal
- Character Bible and Design
- Different types of Characters- Male, female, children
- Character Proportion
- Character Construction
- Costume

- Drawing for Character (Character Model Sheets, Props.)

**Unit VI: Character Design and Background design (07 Lectures)**

- Types of People
- Anthropomorphism
- Personality
- Appeal
- Character Bible and Design
- Different types of Characters- Male, female, children
- Character Proportion
- Character Construction
- Costume
- Drawing for Character (Character Model Sheets, Props.)

What is Reference Map? Research –BG, Colour, Composition etc....

**Unit VII: Storyboards (07 Lectures)**

Story Board Elements,

- Types of Story Boards
- What is Visual Literacy in Storyboards?
- Application of animation principles in Storyboard.
- Aspect ratio
- Shot choice
- Composition within your picture frame
- FG-BG-MG
- Perspective,
- Focal Point
- Depth,
- Camera lenses
- The Story Point
- Emotional response
- Storyboarding - Script Analysis - Thumbnails – Final Storyboard

**Digital Storyboarding**

- The Conventions of the Cinema for storyboarding.
- Animatic

**Suggested Readings/Material:**

**Reference Links**

<https://www.masterclass.com/articles/what-is-concept-art>

## **Reference Books**

1. Animation Writing Development Script Pitch by Jean Ann Wright – Focal Press
2. Professional Storyboarding\_ Rules of Thumb by Sergio Paez and Anson Jew
3. Writing for Animation, Comics, and Game by Christy Marks – Focal Press
4. Animation - From Concept to Production by Hannes Rall - CRS Press
5. The Fundamentals of Animation by Paul Wells and Samntha Moore - Bloomsbury Publication

**Ahmednagar Jilha Maratha Vidya Prasarak Samaj's**  
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**Syllabus**  
**B.Sc. Animation (Major)**

Title of the Course: Foundation of Art								
Year: I				Semester: I				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-3	BS-AN113P	00	02	02	60	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

- 1) Understand the formal elements of art and/or design through art analysis and develop competency in their application through studio practice.
- 2) Learn how to use materials, tools and processes, effectively and safely, from a variety of media (painting, sculpture, ceramic, photography), to create original works of art.
- 3) Select appropriate media to convey specific artistic expression that effectively communicates the artist intent.
- 4) Develop creative problem-solving strategies as a means to create strong artwork.
- 5) Demonstrate critical skills through specific class projects.
- 6) Present, discuss, and support artwork through individual and group critiques

**Detailed Syllabus:**

1. Assignment for Drawing Basic Shapes (Two and Three Dimensional)
2. Drawing and developing five objects using Basic shapes. (e.g., Car, Cup and Saucer)
3. Practicing Technique of Pencil Shading.
4. Human Anatomy
5. Perspective Drawing
6. Character Design (Cartoon)
7. Character Model Sheet
8. Drawing Expression Chart for a Character.
9. Types of Colors (Primary, Secondary, Tertiary), demonstration and assignment
10. Drawing different mannequin poses

## **Suggested Readings/Material:**

### **Reference Books**

1. Figure Study Made Easy By- Aditya Chari -- Grace Publication
2. Anatomy and Drawing - Victor Perard
3. Perspective by Milind Mulik -- Jyotsna Prakashan
4. Animal Anatomy for Artists – The Elements of Form – Eliot Goldfinger - Oxford University Press.

### **Links:**

1. [http://en.wikipedia.org/wiki/Color\\_theory](http://en.wikipedia.org/wiki/Color_theory)
2. <http://www.colormatters.com/color-and-design/basic-color-theory>
3. [http://en.wikipedia.org/wiki/Design\\_elements\\_and\\_principles](http://en.wikipedia.org/wiki/Design_elements_and_principles)
4. <http://www.usability.gov/what-and-why/visual-design.html>
5. <http://en.wikipedia.org/wiki/Typography>



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**Syllabus**  
**B.Sc. Animation (Major)**

<b>Title of the Course: Digital Graphics</b>								
<b>Year: I</b>				<b>Semester: I</b>				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
SEC-1	BS-AN114P	00	02	02	60	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

- 1) Understand and apply the basic principles, techniques, and algorithms for generating and interacting with simple graphical objects on a display screen.
- 2) Gain awareness of common computer graphics software.

**Detailed Syllabus:**

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
11. Matt Painting
12. Social Media Advertising

## **Suggested Readings/Material:**

### **Reference Books:**

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

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**B.Sc. Animation (Major)**

Title of the Course: Indian Art and Paintings								
Year: I				Semester: I				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
IKS-1	BS-AN115T	02	00	02	30	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

1. To Learn Indian Cultural History.
2. To Learn Art , Paintings and Styles.
3. To learn Evolution of Animation.

**Detailed Syllabus: Example**

**Unit 1: Indian Art**

**(12 Lectures)**

- 1) What is Art?
- 2) Seven Classical form of Art.
  - Painting
  - Sculpture
  - Literature
  - Architecture
  - Cinema
  - Music
  - Theater
- 3) Classification of Art.
  - Visual Art: 1. Fine Art ( Drawing, Painting, Sculpture)  
2. Applied Industrial Art ( Graphics, Textiles, Ceramics, photography, Interior design, Furniture design, etc.)
  - Non- Visual Art: 1. Performing Art ( Music, Dance, Drama)  
2. Literary Art (Reading, Poetry, Writing, Novels, short story, Comics, etc.)

**Unit 2: Art of Indus valley civilization and Mohenjo-daro.**

**(08 Lectures)**

- 1) Discovery of Indus valley civilization and Mohenjo-daro
- 2) Architecture of Indus valley civilization and Mohenjo-daro
- 3) Sculpture found at Harappa and Mohenjo-daro site
- 4) Jewellery and pottery found at Harappa and Mohenjo-daro site

**Unit 3: Indian folk Art and Painting style.**

**(13 Lectures)**

- 1) What is Painting?
- 2) Classification of Paintings: ( Murals, Miniature, Painting)
- 3) The most famous and popular Indian Folk Art and Painting: ( Warli painting, Phad painting, Pichwai painting, Mandala art, Madhubani painting, pattachitra art, kalamkari Art, Meenakari painting, Lippan art, etc.)

**Unit 4: Different styles of Indian Paintings.**

**(07 Lectures)**

- 1) Mughal Paintings.
- 2) Rajput Paintings: Rajasthani painting, Mewar painting, Bundi painting, Jaipur painting, Jaisalmer painting, Bikaner painting, jodhpur painting, kishangarh painting, Kotah painting.
- 3) Pahari Paintings: Basohli painting, Kulu painting, Guler painting, Jammu painting, Kangra painting, Garhwal painting.
- 4) Modern Indian Paintings.

**Suggested Readings/Material:**

1. History of fine arts in India & the west by Tomory E
2. The History of Indian Art – Sandhya Ketkar

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

<b>Title of the Course: Basic Animation-II</b>								
<b>Year: I</b>				<b>Semester: II</b>				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical					
						CIE	ESE	Total
DSC-4	BS-AN121T	03	00	03	45	30	70	100

**Learning Objectives:**

**Course Outcomes (Cos)**

1. Developing concepts, storyboarding and production of several 2-dimensional animations will be accomplished.

**Detailed Syllabus:**

**Unit I: Development of Characters (10 Lectures)**

1. Case Studies of famous animation characters.  
E.g., Oswald Rabbit, Tom and Jerry, Beauty and the Beast.

**Unit II: Use of other art forms in Animation (07 Lectures)**

1. Acting: Expression, Gesture
2. Architecture: Lighting, Texture
3. Sculpture: 3D Visualization, Posing
4. Music: Culture, Expressions

**Unit III: Developing Animation Storyboard (09 Lectures)**

1. Shot, Scene, Sequence
2. Types of shots and Camera angles

**Unit IV: Anatomy & Body Language (08 Lectures)**

1. Character Anatomy  
E.g., Hunchback, Beast...
2. Animal Anatomy - Goofy, Donald duck, Dumbo

**Unit V: Developing the characters with computer animation. (07 Lectures)**

1. Character anatomy (Human)  
E.g.: Moana, Tinker bell, woody etc...
2. Animal anatomy  
E.g.: Sid (Ice age), Panda, Dragon....

**Unit VI: Techniques used in Animation short films (05 Lectures)**

1. Discussion about award winning animation short films

**Unit VII: Software's available for digital animation (04 Lectures)**

1. 2D Animation  
-free and paid
2. 3D Animation  
-free and paid

**Unit VIII: Hardware for animation (10 Lectures)**

1. 2D Animation
2. Animation table, disc, peg bar, etc.
3. Digital animation

Computer, Graphic tables, Render farms, 3D Scanners  
(Allotted Lectures)

**Suggested Readings/Material:**

**Reference Books:**

1. The Complete Animation course by Chris Patmore, Barons Educational Series  
(New York)
2. Anatomy of the Artist – Thompson & Thompson

**Ahmednagar Jilha Maratha Vidya Prasarak Samaj's**  
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**Syllabus**  
**B.Sc. Animation (Major)**

Title of the Course: Stop Motion Animation								
Year: I				Semester: II				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-5	BS-AN122T	03	00	03	45	30	70	100

**Learning Objectives:**

**Course Outcomes (Cos)**

- 1) Intermediate course for traditional, digital and cut-out animation.
- 2) This course provides students the fundamental skills to produce traditional style animation as well as puppet animation and the knowledge of the principles of animation to be built upon in subsequent courses leading up to the Portfolio course

**Detailed Syllabus:**

**Unit 1: Introduction (05 Lectures)**

1. What is Stop motion?
2. Nature and Caricature

**Unit 2: Getting equipped (05 Lectures)**

1. What do you need?
2. A camera
3. Lenses
4. Animation software/frame grabbers
5. Tripods
6. Lighting the animator's toolkit
7. Editing/sound

**Unit 3: Getting animated (06 Lectures)**

1. Animating familiar objects as a first approach
2. Setting up for the first time
3. Notes on movement
4. Timing: single frame or double frame?
5. Squash and stretch
6. The dope sheet/X-sheet
7. Planning

**Unit 4: Developing your story**

**(06 Lectures)**

1. Keep it simple –
2. Idea – script – treatment
3. Planning your shots – basic film grammar/composition of shots
4. The storyboard
5. Editing – Animatics and story reels

**Unit 5: Armatures**

**(10 Lectures)**

1. Coat-hangers for armatures – making your own model
2. Character design
3. Working with modelling clays
4. Making your own puppet
5. Simple wire and plasticize puppet
6. Durable clothed puppet

**Unit 6: Mold making**

**(04 Lectures)**

1. Model makers – the professional
2. The Marquette
3. Ball-and-socket armature
4. Mold making – hard and soft molds
5. Casting
6. Coloring
7. Costumes/dressing
8. Model-making master class – Scary Cat Studio and the
9. Duracell bunny

**Unit 7: Making pro**

**(05 Lectures)**

1. Four walls and a sky – sets and props
2. Research the look
3. Design and building of sets
4. Interior sets
5. Exterior sets
6. Forced perspective
7. Making pro
8. Rigging



**Unit 8: Sound**

**(04 Lectures)**

1. Sound advice – the voice track
2. Pre-production
3. Recording dialog
4. Sound breakdown
5. lip sync
6. Music and effects copyright

**Unit 9: Walking and running**

**(03 Lectures)**

1. The mechanics of movement
2. Studies from observation
3. Posing the model
4. Timing
5. Weight
6. Anticipation, action and reaction
7. Walking and running
8. The illusion of speed
9. Animal and bird movement

**Unit 10: Animation master class**

**(04 Lectures)**

1. The model
2. On what creates a character
3. First position
4. The extreme downward position
5. On Vinton' beginning the upward move
6. Slowing down at the top of the move
7. Settling into the final position

**Unit 11: Character animation**

**(02 Lectures)**

1. The performance
2. Character animation
3. Comedy and comic timing
4. Subtle character animation

**Unit 12: The production process**

**(02 Lectures)**

1. lighting
2. Health and safety issues
3. Setting up the camera
4. Shooting with a rig
5. Special effects

**Unit 13: Post-production**

**(02 Lectures)**

1. Timecode
2. The picture edit
3. Sound
4. Titles and credits
5. Exporting your final film

**Unit 14: Getting the job – the business of animation**

**(02 Lectures)**

1. Know where you stand
2. Different work, different studios
3. Commercials
4. Series

**Suggested Readings/Material:**

**Reference Books**

1. **The Advanced Art of Stop-Motion Animation by Ken Priebe**



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

Title of the Course: 3D Visualization								
Year: I				Semester: II				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
SEC-2	BS-AN123P	00	02	02	60	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

1) During the term of the course, students will learn to work within virtual 3-D space and build volumetric objects including: vertices, splines, polygons, primitive shapes and Sub Patch geometry.

**Detailed Syllabus:**

1. Create Basic 3D Model Chair, Table, couch
2. Create a 3D House using proper plan and references
3. Model Exterior of 4 Storey Building with proper floor plan and environment
4. Model 3D Car using reference Images
5. Render the Exterior Scene using standard lights and render settings
6. Create a Background scene including river water and vegetation
7. Create a 3D Village scene and render with environment and effects, Image based lighting
8. Create a 3D Cartoon Character with proper drapery and Texture: any game model
- 9 Render a Turn Table of given Cartoon character
- 10 Create Facial Expressions using Blend shapes: Vowels and Expressions

## **Suggested Readings/Material:**

### **Reference Book**

Mastering Autodesk Maya 2015, Author - Todd Palmar

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

Title of the Course: 2D Animation								
Year: I					Semester: II			
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
VSC-1	BS-AN124P	00	02	02	60	15	35	50

**Learning Objectives:**

**Course Outcomes (Cos)**

1. 2D Animation I is an intermediate course for traditional, digital and cut-out animation.
2. This course provides students the fundamental skills to produce traditional style animation as well as puppet animation and the knowledge of the principles of animation to be built upon in subsequent courses leading up to the Portfolio course.
3. Students can also apply skills learned in this class in other areas including motion graphics, stop motion and basic traditional animation.

**Detailed Syllabus:**

**Adobe Animate CC**

1. Create Bouncing Ball animation using Animation Principal.
2. Character Walk cycle (Basic and Advance).
3. Car Animation.
4. Animating Rocket using Symbols and Animation principle.
5. Create a Webpage.

**Adobe Character Animator**

6. Create a Motion Capture using lip sync
7. Creating an Illustrator Puppet
8. Creating Walk cycle using Adobe Character Animator.

9. Character Rigging
10. Studying Editing and Recording

### **Suggested Readings/Material:**

1. Adobe Animate Classroom in a Book- Russell Chun
2. Timing for Animation - Harold Whitaker
3. A Reader in Animation Studies-- Jayne Pilling

### **Links:**

1. [https://en.wikipedia.org/?title=2D\\_Animation&redirect=nohttp://www.colormatters.com/color-and-design/basic-color-theory](https://en.wikipedia.org/?title=2D_Animation&redirect=nohttp://www.colormatters.com/color-and-design/basic-color-theory)
2. [https://en.wikipedia.org/wiki/Computer\\_animationhttp://www.usability.gov/what-and-why/visual-design.html](https://en.wikipedia.org/wiki/Computer_animationhttp://www.usability.gov/what-and-why/visual-design.html)
3. [https://en.wikipedia.org/wiki/Character\\_animation](https://en.wikipedia.org/wiki/Character_animation)