

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) - II Year

Implemented from

Academic Year 2024-25

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
	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

B. Sc. Programme Framework: Credit Distribution

Year	Semester	Level	Major										Minor	OE	CC	ABC	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	1	10
	II	4.5	2	-	-	-	1	-	1	-	-	-	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	1	-	09	
II	IV	5.0	2	1	-	-	-	-	1	-	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	1	1	-	-	-	-	08	
III	VI	5.5	2	1	1	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/PR	
			T	P	T	P	T	P	T	P	T	P	T			
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	02
2.	I	I	4.5	DSC-2	BS-AN112T	Programming Language	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	Advance Programming	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-AN241T	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

Department of Animation, New Arts, Commerce and Science College, Ahmednagar

23.	III	V	5.5	DSE-01	BS-AN355T	Concept Art	02
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

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

Title of the Course: Design Principle								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-6	BS-AN231T	03	00	03	45	30	70	100

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.

Detailed Syllabus:

Unit I: History of Design (05 Lectures)

Unit II: What is Design? (06 Lectures)

Unit III: Elements of Design: (02 Lectures)

1. Line
2. Color
3. Shape
4. Value
5. Texture
6. Space
7. Form
8. Typeface

Unit IV: Principles of Design and Gestalt Theory: (05 Lectures)

- 1) Unity/ Harmony
- 2) Balance
- 3) Scale/ Proportion
- 4) Dominance/ Emphasis
- 5) Similarity
- 6) Proximity
- 7) Contrast
- 8) Figure and Ground
- 9) Symmetry
- 10) Order

- 11) Continuation
- 12) Closure

Unit V: Introduction to Colors (06 Lectures)

- 1) Different types of Methods Additive and Subtractive
- 2) Difference between Tint, Tone, Shade, Value, Hue, Saturation, etc.
- 3) Introduction to Color Harmony and Color Schemes:
 - a) Grayscale
 - b) Cool colors
 - c) Warm colors
 - d) Analogous
 - e) Complementary
 - f) Split-Complimentary
 - g) Triadic
 - h) Tetradic
 - i) Monochromatic
 - j) Achromatic
 - k) Contrast, etc.

Unit VI: Types of Designs: (07 Lectures)

- 1) Graphic design
- 2) Product design
- 3) Interior design, etc.

Unit VII: Skills required for a Designer (07 Lectures)

Unit VIII: Use and purpose of Design (07 Lectures)

Suggested Readings/Material:

1. The Pocket Universal Principles of Design by William Lidwell.
2. Principles of Logo Design: A Practical Guide to Creating Effective Signs, Symbols, and Icons by George Bokhua.

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

Title of the Course: Digital Technologies								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-7	BS-AN232T	03	00	03	45	30	70	100

Learning Objectives:

Course Outcomes (Cos)

1. Describe the types of media and define multimedia system.
2. Describe the process of digitizing of different analogue signals (text, graphics, sound and video).
3. Use and apply tools for image processing, video, sound and animation.

Detailed Syllabus:

Unit I: Introducing Multimedia & Multimedia information (05 Lectures)

- 1.1-Introduction
- 1.2 Multimedia Today
- 1.3 Future of Multimedia
- 1.4 Elements of Multimedia
- 1.5. What is multimedia?
- 1.6. Early Hypertext and Collaborative Research
- 1.7. Multimedia and personalized computing
- 1.8. Multimedia on the Map
- 1.9. Multimedia System: The challenges

Unit II: The convergence of Computers, communication and entertainment Products.
(08 Lectures)

- 2.1 Technology Trends
- 2.2 Multimedia Appliances: Hybrid Devices
- 2.3 A designer's view of Multimedia Appliances
- 2.4 Industry Perspectives for the next decade

Unit III: Digital Audio Representation and Processing **(09 Lectures)**

- 3.1 Uses of Audio in computer applications
- 3.2 Psychoacoustics
- 3.3 Digital Representations of sound
- 3.4 Transmission of digital sound
- 3.5 Digital Audio signal Processing
- 3.6 Digital music making

Unit IV: Video Technology **(09 Lectures)**

- 4.1 Sensors for TV Cameras
- 4.2 Color Fundamentals
- 4.3 Color Video
- 4.4 Video Performance Measurements
- 4.5 Video Equipment

Unit V: Digital Video and Image Compression **(09 Lectures)**

- 5.1 Evaluating a compression System
- 5.2 Redundancy and Visibility
- 5.3 Video compression techniques
- 5.4 Standardization of algorithms
- 5.5 The JPEG Image compression standards
- 5.6 The MPEG Motion Video Compression Standards
- 5.7 DVI Technology

Unit VI: Multimedia Interchange

(05 Lectures)

7.1 QuickTime Movie File (QMF) format

7.2 OMFI

7.3 MHEG (Multimedia and Hypermedia Information Encoding Expert Group)

7.4 Track model and object model

7.5 Real-Time Interchange

Suggested Readings/Material:

1. Multimedia in Practice (PEARSON) –Jeffcoate.
2. Multimedia Systems (PEARSON) –John F.Koege Buford
3. Multimedia Computing Communication and Application -Steinmetz

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 Production								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-8	BS-AN233P	00	02	02	60	15	35	50

Learning Objectives:

Course Outcomes (Cos)

1. This course introduces students to all the features of Maya.
2. Introduction, Modelling, Texturing, Rendering and popular workflow.
3. Study of Rigging, Dynamics and FX is included.

Detailed Syllabus:

Practical List:

1. Create Realistic 3D Interior scene, which is render using Arnold Maya.
2. Create and render 3D Village scene and render with Arnold and HDRI
3. Model a Car, Texture and render with Arnold
4. Model a 3D cartoon Character (any from TV Series)
5. Rig, skin and weight a cartoon 3D character
6. UVW unwrap and texture (with Photoshop) a 3D character
7. Create N-Cloth: Cover Dining table and bed with a cloth
8. Animate walk cycle of 3D Cartoon Character
9. Make realistic Hair on a 3D Model using X-Gen
10. Create liquid simulation: pour water from a bottle to a glass. Use Bifrost

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

Title of the Course: Animation Technique								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
SEC-3	BS-AN234P	00	02	02	60	15	35	50

Learning Objectives:

Course Outcomes (Cos)

1. Studying Adobe After effects Software
2. Study of Compositing CGI Elements
3. Understanding Particle System

Detailed Syllabus:

Practical List:

1. Remove a green Screen, Remove unwanted parts using Rotoscoping and composite with proper background and color Correction.
2. I) Track a motion and add an elements or Text.
II) Replace a screen using 4 point Tracking.
3. Create a various effects using Particle Systems.
4. Create a 3D Title Using element 3D (Plug in).
5. Compose a scene using (CGI) Cinema 4D or Element 3D (Plug in).
6. Record and Edit Music
7. Remix Music to fit Your Video
8. Set Up multitrack Se up
9. Remove Noise from Audio Files & Repair and restore audio
10. Use Stereo Expander Effects

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

Title of the Course: Vector Graphics								
Year: II				Semester: III				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
FP-1	BS-AN235P	00	02	02	30	15	35	50

Learning Objectives:

Course Outcomes (Cos)

1. Be able to navigate Adobe Workspace, Set up a document, and work with pages.
2. Understand how to work with frames, importing & linking graphics
3. Be able to import and edit text, work with typography and style sheets

Detail Guidelines for Field Project (FP)

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

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

Title of the Course: Augmented and Virtual Reality								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-9	BS-AN241T	03	00	03	45	30	70	100

Learning Objectives:

Course Outcomes (Cos)

- 1.This course provides students with an opportunity to explore the research issues in Augmented Reality and Virtual Reality (AR &VR).
- 2.It also makes the students know the basic concept and framework of virtual reality.

Detailed Syllabus:

Unit I: Overview

(08 Lectures)

- 1.1 Introduction
- 1.2 The difference between AR and VR
- 1.3 Virtual Reality
- 1.4 VR Headset
- 1.5 VR Companies
- 1.6 Augmented Reality
- 1.7 AR Companies
- 1.8 Mixed Reality

(11 Lectures)

Unit II: Virtual Reality

- 2.1 Introduction
- 2.2 Fundamental Concept and Components of Virtual Reality
- 2.3 Commercial VR Technology
- 2.4 Classic components of VR system

- 2.5 Input Devices
- 2.6 Output Devices
- 2.7 Modeling
- 2.8 Human Factors
- 2.9 Interactive Techniques in Virtual Reality

Unit III: Augmented Reality

(14 Lectures)

- 3.1 Introduction
- 3.2 Brief History
- 3.3 Examples of AR
- 3.4 Related fields of AR
- 3.5 Challenges with AR
- 3.6 Adding Sound
- 3.7 Multimodal Display
- 3.8 Visual Perception
- 3.9 Spatial Display Model
- 3.10 Visual Display
- 3.11 Tracking of AR
- 3.12 Mobile AR

Unit IV: Creation and application of AR and VR

(12 Lectures)

- 4.1 SDK and Games Engine
- 4.2 Technology and features of augmented reality
- 4.3 Applications of AR and VR in different Industries
- 4.4 AR Project Example
- 4.5 Extended Reality in Marketing

Suggested Readings/Material:

1. Burdea, G. C. and P. Coffet. Virtual Reality Technology, Second Edition. Wiley-IEEE Press, 2003/2006.
2. Alan B. Craig, Understanding Augmented Reality, Concepts and Applications, Morgan Kaufmann, 2013.

3. William R Sherman, Alan B Cranig, Understanding Virtual Reality Interface, Application and Design, Morgan Kaufmann Publishers, 2018.
4. Alan Craig, William Sherman and Jeffrey Will, Developing Virtual Reality Applications, Foundations of Effective Design, Morgan Kaufmann, 2009.

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

Title of the Course: Camera Technique								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-10	BS-AN242T	03	00	03	45	30	70	100

Learning Objectives:

Course Outcomes (Cos)

- 1.To learn techniques in Photography
- 2.To learn handling DSLR Camera
3. To learn Adobe Light room

Detailed Syllabus:

Unit I: History of Photography (10 Lectures)

- 1.1 Camera obscuras
- 1.2 The Invention of Photography Cameras
- 1.3 First photo ever taken

Unit II: Digital Photography (10 Lectures)

- 2.1 Digital Photography
- 2.2 Why SLR?
- 2.3 Aperture, Shutter Speed, ISO
- 2.4 Specialized Lances (Wide Angle, Zoom, Micro)
- 2.5 Introduction to Mirrorless Camera

Unit III: Framing (07 Lectures)

- 3.1 Rule of Third
- 3.2 Layer and Depth
- 3.3 Line, Colors, Textures, Shape

Unit IV: Types of Photography

(06 Lectures)

4.1 Portrait Photography

4.2 Food Photography

4.3 Wildlife Photography

Unit V: Adobe Light room for Photography

(12 Lectures)

5.1 Intro Adobe Light room

5.2 Overview of the editing controls

5.3 Adjust lighting, set white balance, Adjust color saturation

5.4 Crop a photo, Adjust perspective with upright

5.5 Edit parts of a photo

(With Radial Gradients, Apply local adjustments With Linear Gradients, Use the Brush tool to Change part of a photo, Remove unwanted content with the Healing Brush)

Suggested Readings/Material:

1. <https://www.camera-obscura.co.uk/article/what-is-a-camera-obscura>
2. <https://www.photoblog.com/learn/history-of-cameras/>
3. <https://www.photoblog.com/learn/first-photograph-in-history/>
4. Photography: An Illustrated History Martin W. Sandler
5. DSLR Photography for Beginners (By Brian Black)
6. The Portrait (Glenn Rand, Tim Meyer)
7. THE ART AND STYLE OF Product Photography (J. DENNIS THOMAS)
8. 8. Food Photography A Beginner's Guide to Creating Appetizing Images
9. (Corinna Gissemann)
10. Wildlife Photography from Snapshots to Great Shots (Laurie Excell)

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 Sculpting								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
DSC-11	BS-AN243P	00	02	02	60	15	35	50

Learning Objectives:

Course Outcomes (Cos)

1. This course introduces students to all the features of ZBrush.
2. Introduction, Sculpting.
3. Study of Sculpting, Lighting and Rendering.

Detailed Syllabus:

Practical List:

1. Write and explain types of Traditional Sculpting, various types of tools to be used.
2. Sculpt any 3 fruits using poly sphere
3. Sculpt any 3 Shields for Game weapon
4. Sculpt a warrior sword with detailed sculpting
5. Design and create warrior costume in ZBrush
6. Design and create a 3D character using ZSphere
7. Sculpt a realistic 3D Creature head including Jaw, Teeth, and eyes.
8. Sculpt and texture a creature or super Hero character using Alpha with RGB color, skins and IMM brushes
9. Model and Sculpt Metal Ornaments for Indian Mythological character using various sculpt tools e.g. Standard, Clay built-up Damm-standard etc. as well as self-created alphas and IMM brushes.
10. Render a full scene including characters, cloth, weapons, environment and all necessary stuff. Output in BPR Render

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

Title of the Course: Motion Graphics								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
VSC-2	BS-AN244P	00	02	02	60	15	35	50

Learning Objectives:

Course Outcomes (Cos)

- 1.To Learn Motion Graphics
2. Understanding vector animation
3. Learning Adobe After Effects in detail.

Detailed Syllabus:

Practical List:

1. Create a Lower third, sting, opening, Bumper
2. Create an Appropriate Title for a movie
3. Create a motion graphics for Product Advertise (3D)
4. Create a Infographic video Using HUD
5. Logo Animation
6. Typography
7. E- Learning Project
8. Create Content Motion graphics Video using Audio
9. Application Presentation Video
10. Create Portfolio

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

Title of the Course: Graphics Art								
Year: II				Semester: IV				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
CEP-1	BS-AN245P	00	02	02	60	15	35	50

Learning Objectives:

Course Outcomes (Cos)

1. Understanding the designing of Book, Magazines and different graphics media.
2. Understanding how to upload your interactive graphic work online.
3. Understanding different aspects of Type and Master Pages.
4. Designing different Medias using the learned software.

Detail Guidelines for Community Engagement Project (CEP)

Practical List:

1. Newspaper Layout
2. Logo Design, Business Card Design, Letterhead and Envelope Design.
3. Magazine Front Page Design or Magazine Inner Page Design
4. Newspaper Advertisement
5. Menu Card Design
6. Music CD Sticker, CD cover & CD Carton design.
7. Design a 15 page Informative Book (e.g. City Guide, Product guide etc.)
8. Design Award Certificate or a Pamphlet Design
9. Bifold or Trifold Brochure Design
10. Design an E-book using ePUB Format.