

Progressive Education Society's
Modern College of Arts, Science and Commerce
(Autonomous), Shivajinagar, Pune 5

(An Autonomous College Affiliated to Savitribai Phule Pune University)

Framework of Syllabus

For

S.Y B. Voc. (Animator)

Choice Based Credit System (CBCS) Syllabus
Under National Education Policy (NEP)
To be implemented from Academic Year 2024-2025

Level:- 4.5 (First Year) Sem:I

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ (T/P) (2) or T(4)	24CsAnmU1101	Basics of Animation I	2		2		20	30	50
	24CsAnmU1102	Lab Course on 24CsAnmU1101		2		4	20	30	50
Subject 2 T(2)+ (T/P) (2) or T(4)	24CsAnmU1201	3D Modeling I	2		2		20	30	50
	24CsAnmU1202	Lab Course on 24CsAnmU1201		2		4	20	30	50
Subject 3 T(2)+ (T/P) (2) or T(4)	24CsAnmU1301	Lab Course on Animation Project Planning		4		8	40	60	100
IKS T(2)	24CpCopU1901	Generic IKS	2		2		20	30	50
GE/OE (T/P) (2)	24CsAnmU1401	Lab Course on Foundation Art		2		4	20	30	50
SEC (P) (2)	24CsAnmU1601	Lab Course on Foundation Art I		2			20	30	50
AEC T(2)	24CpCopU1701 / 24CpCopU1702	MIL-I (Hindi) / MIL-I (Marathi)	2		2		20	30	50
VECT (2)	24CpCopU1801	Environmental Science	2		2		20	30	50
Total			10	12	10	20			550

Level:- 4.5 (First Year) Sem:II

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ T/P(2) or T(4)	24CsAnmU2101	Basics of Animation II	2		2		20	30	50
	24CsAnmU2102	Lab Course on 24CsAnmU2101		2		4	20	30	50
Subject 2 T(2)+ P(2)	24CsAnmU2201	3D Modeling II	2		2		20	30	50
	24CsAnmU2202	Lab Course on 24CsAnmU2201		2		4	20	30	50
Subject 3 T(2)+ P(2)	24CsAnmU2301	2D Animation Project	4		4		40	60	100

GE/OE (T/P)(2)	24CsAnmU2401	Lab Course on Calligraphy and Typography	2		2		20	30	50
SEC P(2)	24CsAnmU2601	Lab Course on Foundation Art II		2		4	20	30	50
AEC T(2)	24CpCopU2703	English Communication Skills I	2		2		20	30	50
VEC T(2)	24CpCopU2801	Democracy, Election and Governance	2		2		20	30	50
CC(2)	24CpCopU2001 / 24CpCopU2011 / 24CpCopU2021 / 24CpCopU2031 / 24CpCopU2041 / 24CpCopU2051 / 24CpCopU2061 / 24CpCopU2071	Physical Education / Cultural Activities / NSS / NCC / Fine Arts / Applied Arts / Visual Arts / Performing Arts	2		2		20	30	50
Total			16	06	16	12			550

Level:- 5.0 (Second Year) Sem:III

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2 or 4), (T/P)(2)	24CsAnmU3101	3D Animation I	2		2		20	30	50
	24CsAnmU3102	Production Process I	2		2		20	30	50
	24CsAnmU3103	Lab Course on 24CsAnmU3101		2		4	20	30	50
VSC P(2)	24CsAnmU3501	Lab Course on Digital Art I		2		4	20	30	50
IKS (T/P)(2)	24CsAnmU3901	Indian Art Culture	2		2		20	30	50
FP P(2)	24CsAnmU3002	Field Project I		2		4	20	30	50
Minor (T/P) (2+2 or 4)	24CsAnmU3301	Creative Writing Project		4		8	40	60	100
GE/OE (T/P) (2)	24CsAnmU3401	Lab Course on Graphic Designing		2		4	20	30	50
AEC T(2)	24CpCopU3703	English Communication Skills II	2		2		20	30	50
CC T(2)	24CpCopU3001	Online Course on Yoga	2		2		20	30	50
Total			10	12	10	24			550

Level:- 5.0 (Second Year) Sem:IV

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total

Major Core T(2+2 or 4), (T/P)(2)	24CsAnmU4101	3D Animation II	2		2		20	30	50
	24CsAnmU4102	Production Process II	2		2		20	30	50
	24CsAnmU4103	Lab Course on 24CsAnmU4101		2		4	20	30	50
VSC P(2)	24CsAnmU4501	Lab Course on Digital Art II		2		4	20	30	50
CEP P(2)	24CsCopU4003	Community Engagement Project		2		4	20	30	50
Minor (T/P) (2+2 or 4)	24CsAnmU4301	Screen Writing Project	4		4		40	60	100
GE/OE (T/P) (2)	24CsAnmU4401	Lab Course on e-content Development (Video Production)		2		4	20	30	50
SEC T(2)	24CsAnmU4601	Video Production	2		2		20	30	50
AEC T(2)	24CpCopU4701 / 24CpCopU4702	MIL-II (Hindi) / MIL-II (Marathi)	2		2		20	30	50
CC T(2)	24CpCopU4001	Health and Wellness	2		2		20	30	50
Total			14	08	14	16			550

Level:- 5.5 (Third Year)

Sem:-V

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2or 4 + 2+2 or 4 + 4) P(2+2 or 4)	24CsAnmU5101	Motion Graphics	2		2		20	30	50
	24CsAnmU5102	Introduction to Game Design	2		2		20	30	50
	24CsAnmU5103	Multimedia I	4		4		40	60	100
	24CsAnmU5104	Lab Course on 24CsAnmU5101		2		4	40	60	100
	24CsAnmU5105	Lab Course on 24CsAnmU5102		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24CsAnmU5201	Lab Course on Props and Prosthetics		4		8	40	60	100
	24CsAnmU5203	Game Designing Project		4		8	40	60	100
VSC P(2)	24CsAnmU5501	Stop Motion Short Film		2		4	20	30	50
FP (2)	24CsAnmU5001	Field Project II		2		4	20	30	50
Minor (T/P) (2)	24CsAnmU5302	Graphic Designing Project	2		2		20	30	50
Total			10	12	10	24			550

Level:- 5.5 (Third Year)

Sem:-VI

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2 or 4+2+2 or 4+4) P(2+2 or 4)	24CsAnmU6101	VFX	2		2		20	30	50
	24CsAnmU6102	3D Animation Techniques		2		4	20	30	50
	24CsAnmU6103	Multimedia II	4		4		40	60	100
	24CsAnmU6104	Lab Course on 24CsAnmU6101		2		4	20	30	50
	24CsAnmU6105	Lab Course on 24CsAnmU6102		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24CsAnmU6201	Lab Course on Special Effects		4		8	40	60	100
	OR								
	24CsAnmU6203	VFX Project		4		8	40	60	100
VSC P(2)	24CsAnmU6501	Animation Short Film		2		4	20	30	50
OJT (2)	24CsAnmU6004	On Job Training		4		8	40	60	100
Total			06	16	06	32			550

SEMESTER III

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(2024 Course under NEP 2020)

Major Paper (Theory)
Course Code : 24CsAnmU3101
Course Name : 3D Animation - I

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- Drawing Skills, Creative & Logical thinking ability
- Basic knowledge of Computer Fundamental

Course Objectives:

- To understand about 3D Modeling
- To understand about 3D Technology

Course Outcomes:

On completion of the course, student will be able to–

- Students will have improved their visualization power to explore new ideas.
- Students will develop 3D Modeling skill.
- Students will be able to create professional 3D Designing.
- Students will be developed 3D knowledge and skills.
- Student will be develop flow of any object structure
- Student will be develop observation power.

Course Contents

Unit 1	Exploring Maya Interface	4 lectures
	● Interface ● Tools ● 3D Space ● Menu Bar ● Attribute Panel ● Outliner ● Channel Box ● Layer Panel	
Unit 2	Polygon Modeling	8 lectures
	● Polygon Primitives ● Ngons vs Poly ● Sub-object Level - Vertex, Edge, Face ● Low Poly and High poly ● Polygon Menu bar and Tools	
Unit 3	NURBS Curves, Surface and Modeling	6 lectures
	● NURBS Primitives ● Curve Tools ● Sub-object Level – Curve Point, Control Vertex, Edit Point ● Surface Menu and Tools	
Unit 4	UV Mapping	2 lectures
	● Normals ● UVW Map ● Unwrap UVW ● UV Editor ● Types of UVW Mapping ● Export UVW Map	
Unit 5	Shading and Texturing	4 lectures
	● Hypershade Windows ● Types of Shaders ● Node Editor ● Mental Ray / Arnold Shader	

	• Types of Texture Mapping • Import Texture Map	
Unit 6	Lighting	2 lectures
	• Types of Lighting • Light Attributes • Mental Ray / Arnold Lights • Three Point Lighting • Setup A Scene	
Unit 7	Rendering	3 lectures
	• Render Setting • Render Current Frame • IPR Rendering • Export Final Render File • Intro to Arnold and Mental Ray	
Unit 8	Experiential Learning	1 lecture
	3D Modeling based on real life object	

Reference books:

- Introducing Autodesk Maya 2019 by Dariush Derakhshani - Publisher: Sybex
- Learning Autodesk Maya 2019: A practical hands-on guide by Prof Sham Tickoo - Publisher: CADCIM Technologies
- Maya Visual Effects: The Innovator's Guide by Eric Keller - Publisher: Sybex
- Mastering Autodesk Maya 2019 by Todd Palamar - Publisher: Sybex
- Maya for Games: Modeling and Texturing Techniques with Maya and Mudbox by Michael Ingrassia - Publisher: Sybex

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Second Year of B.Voc.(Animator and VFX)
(2024 Course under NEP 2020)
Course Code : 24CsAnmU3102

Course Name : Production Process-I

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Basic Computer knowledge
- Video awareness.

Course Objectives:

- To understand production pipeline of animation movie
- To understand different stages of film production

Course Outcomes:

On completion of the course, student will be able to–

- Students will have improved their visualization power to explore new ideas.
- Plan and create animation or live action films.
- Students will be able to document and research data for their production
- Students will be able to write and design different characters.
- Students will be able to compose backgrounds and design sets.
- Students will be able to script, storyboard and make animatics for their films.

Course Contents

Unit 1	Introduction to production pipeline	4 lectures
	• Basics of production pipeline	

	• Introduction to production process of animation movie • Introduction to production process of live action movie	
Unit 2	Research	6 lectures
	• Period/Location • Historic / Scientific facts • Society • Costumes • Props	
Unit 3	Character Design	6 lectures
	• Anthropomorphism • Personality • Appeal • Character Bible and Design • Different types of Character • Character Construction • Costume	
Unit 4	Character Model Sheets	4 lectures
	• Turn- around • Expression Chart • Extreme poses • Proportion Chart	
Unit 5	BG Design	4 Lectures
	• Color Keys • Color moods • Location, Plan • Establishing BG • Key Location • Props Design	
Unit 6	Storyboard and Animatic	4 lectures
	• Importance of storyboarding • Language of storyboards • Line Testing • Animatic	
Unit 7	Experiential learning	2 lectures
	• Animatics based on personal research	

Reference books:

- Storyboard Design Course by Giuseppe Cristiano----Barron's Animator survival kit

- The Art of layout and storyboarding—Mark T.Byrne
- The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age (2013 Edition)
by Steven Ascher and Edward Pincus
- Force: Character Design from Life Drawing by Mike Matessi

Major Paper Practical
Course Code : 24CsAnmU3103
Course Name : Lab Course on 24CsAnmU3101 (Practical)

Teaching Scheme: TH: 4 Hours/Week

Credit 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Assignment List

Sr. No.	Assignment Name
1	Create any Basic Polygonal Model
2	Create Model using Nurbs Modeling Method
3	Design Clock model and apply texture
4	Create Lamp model
5	Design gun model With Texturing
6	Design Cartoon Character
7	Create Human Character
8	Design car Model
9	Create Interior/Exterior Model
10	Create chess board add animation
11	Create 4 leg animal model
12	Using Camera animation Create interior/Exterior Walkthrough

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Second Year of B.Voc Animator
(2024 Course under NEP 2020)
Course Code : 24CsAnmU3501

Course Name : Lab course on Digital Art

Teaching Scheme: TH: 4 Hours/Week

Credit : 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Students are required to have basic knowledge about computers.
- Students are required to understand file management (opening, saving, and organizing files).
- Students are required to know how to open the program and navigate the workspace.

Course Objectives:

- To Study the Interface of image editing software & Navigation
- To learn basic image Editing & Adjustments
- To learn principles of Design and how to apply them.

Course Outcomes:

On completion of the course, student will be able to–

- Understand Photoshop's Interface & Tools
- Will develop basic photo editing skills.
- Will have better understanding of designing and composition
- Understand color theory, gradients, and layout
- Export and save files for print, web, and social media.

Course Contents

Unit 1	Introduction to Digital Art	
	● Types of Images ● File and File formats ● Design thinking and problem solving	

Unit 2	Introduction to software	
	● Interface Basic ● Palettes and Menus ● Toolbar - Selection Tools, Painting tools, Editing and retouching tools ● Text tools. ● Ruler, Guides and Grids	
Unit 3	Elements and Principles of Design	
	● Basic elements of design: line, shape, color, texture, and space ● Fundamental design principles such as balance, contrast, emphasis, rhythm, and unity ● Application of both of the above	
Unit 4	Color Theory and Psychology	
	● Hue, saturation, value, and color schemes ● Psychological effects of color in design ● Color Mode, Color Correction, Levels and Curves	
Unit 5	Layout and Composition	
	● Principles of layout and composition ● Layer concept ● Selecting, Grouping and linking layers, Layer Effects, Layer Mask	
Unit 6	Experiential Learning :	
	● Digital Painting	

Reference books:

Beginner's Guide to Digital Painting in Photoshop – by 3dtotal Publishing

Digital Painting Techniques – by 3dtotal Publishing

The Digital Painting Handbook – by David Wright

Photoshop for Digital Artists– by Aaron Blaise

Reference links:

Official Adobe Photoshop website: <https://www.adobe.com/products/photoshop.html>

Photoshop Cafe (Photoshop tutorials, tips, and resources): <https://photoshopcafe.com/>

DeviantArt: <https://www.deviantart.com/>

ArtStation: <https://www.artstation.com/>

Practical List

Sr.no	Title
1	Create a mood board by collecting images, colors, and typography samples that inspire you.
2	Work with different shapes to make a cohesive design.
3	Use Different types of brushes to create a complete design
4	Basic Photo Retouching: Remove blemishes using the Spot Healing Brush and Clone Stamp tool. Adjust brightness, contrast, and color balance.
5	Cutting Out Objects & Background Removal
6	Experiment with blending modes to create unique lighting effects.
7	Adjust image tone using Hue/Saturation, Curves, and Levels. Apply artistic filters and effects for a stylized look.
8	Combine multiple images into a seamless digital collage. Use masking and blending techniques for smooth transitions.
9	Make a Digital Portrait
10	Merge different images to create a surreal or fantasy artwork. Add light and shadow effects for realism.
11	Poster Design: Design a movie or event poster using typography, images, and effects.
12	Album Cover or Social Media Banner

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Second Year of B.Voc. Animator
NEP 2024 Pattern

Subject Specific Indian Knowledge System (IKS)

Course Code : 24CsAnmU3901

Course Name : Indian Art Culture

Teaching Scheme: TH : 2 Hours/Week

Credit : 02

Examination Scheme: CIA : 50 Marks

End-Sem : 50 Marks

Prerequisite Courses:

- Brief knowledge of Indian history
- Knowledge of Art and culture.
- Completion of Generic IKS course.

Course Objectives:

- To Study the historical aspects of Indian Art Culture
- To learn different styles of Indian art.
- To get Conceptual and Aesthetical understanding of Indian Art.
- To understand the philosophy of Indian Culture.
- To get practically aware of various methods of Art expression.
- To get an idea how to implement the rich Indian heritage in a modern context.

Course Outcomes:

On completion of the course, student will be able to –

Recognize the fragrance of Indian art & culture in true sense.

Apply Indian styles of design practically in Graphics and Animation projects.

Course Contents

Unit 1	History of Indian art	5 lectures
	● Timeline of Indian History ● Indus valley civilization ● Rise of Buddhist Art ● Mauryan Art ● Age of the Chaityas ● Gupta Period Art	
Unit 2	Indian painting styles	4 lectures
	● Madhubani Paintings ● Warli Paintings ● Kalamkari ● Chitrakathi ● Kangra Painting ● Gond Painting ● Miniature Painting ● Rajasthani Phad Painting	
Unit 3	Indian sculptures	4 lectures
	● The Priest-King, Mohenjo-daro ● Dancing Girl (bronze), Mohenjo-daro ● The Lion Capital of Ashoka ● Gandharan sculpture ● Terracotta	
Unit 4	Indian architecture	4 lectures
	● The Elephanta Caves ● Stupa : Art & Architecture ● Indian Temple style ● Indian forts ● Indian village houses	
Unit 5	Indian puppetry	2 lectures

	● Introduction to puppetry Art ● A finger puppet ● A puppeteer ● A sock puppet ● A hand puppet ● A String Puppet	
Unit 6	Indian Cinema	5 lectures
	● Dadasaheb Phalke era ● Satyajit Ray period ● Indian cinema studios ● Golden era of Indian cinema ● Guru Dutt era	
Unit 7	Animation in India	3 lectures
	● Indian Illustration styles ● Comics in India ● Panchtantra story books ● Cell Animation in India ● Films Division of India	
Unit 8	Indian styles of surface ornamentation	3 lectures
	● Traditional Rangoli drawing ● Traditional Wall decorations ● Indian Bamboo art ● Rukhwata art ● Aarasa decoration art	

Reference Books :

Indian Art History, Author: Prof. Jayprakash Jagtap,

Publication: Jagtap Publishing House

Indian Art Culture (ISBN : 978-81-977566-1-0), Author : Sameer Nerlekar

Publication : Radneya Publication

The History of Indian Art (ISBN : 978-81-792547-5-2),

Author : Anil Rao, Sandhya Ketkar

Publication : Jyotsna Prakashan

The Square and the Circle of the Indian Arts (ISBN : 978-81-701736-2-5)

Author : Kapila Vatsyayan

Publication : Abhinav Publications.

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Second Year of B.Voc.(Animator and VFX)
(2024 Course under NEP 2020)
Course Code : 24CsAnmU3301

Course Name : Creative Writing Project

Teaching Scheme: TH: 8 Hours/Week

Credit 04

Examination Scheme: CIA : 40 Marks

End-Sem : 60 Marks

Prerequisite Courses:

- Basic language skills
- Observational skills

Course Objectives:

- To study the significance of creativity and writing
- To develop a sense of voice and personality in expression
- To inculcate a routine that develops the craft of writing

Course Outcomes:

On completion of the course, student will be able to–

- Express themselves more creatively
- Learn multiple theories and methods of creative writing.
- Write in different forms of writing.
- Make optimum use of language and style.
- Appreciate various forms of literature.
- Seek employment in various creative fields.

Guidelines

- Individual project : The student must carry the project work individually. The Project must reflect creativity and originality of the student. The student may take help from other students and mention those respectively.
- Selection and approval of the theme and topic for the project. For the final project

The student may select any form such as short story, play or Dialogue that would help them express their writing skills.

- The term work assessment of Creative Writing project shall be based on
 1. Innovative Idea of selected project
 2. Research behind the writing.
 3. Depth of understanding
 4. Presentation
 5. Project report
 6. Timely completion of work.
- The student should prepare a project plan and should follow accordingly
- A log book of work carried out during the semester should be maintained with weekly review remarks by the guide and committee.
- A certified copy of the report is required to be presented to the external examiner at the time of Practical examination.
- The project report must undergo a plagiarism check and the similarity index must be less than 15%. The plagiarism report should be included in the project report.

Reference Books :

- The handbook of Creative Writing : Steven Earnshaw
- Creativity workout : Edward de bono
- Lateral thinking : Edward de bono

Reference Links:

- Writer's Digest - Writing Tips and Articles: <https://www.writersdigest.com/>
- Medium - Writing Community and Publication: <https://medium.com/>
- Creative Writing Now - Writing Courses and Prompts:
<https://www.creative-writing-now.com/>

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SY OPEN ELECTIVE
(2024 Course under NEP 2020)
Course Code : 24CsAnmU3401

Course Name : Lab Course on Graphic Design

Teaching Scheme: TH: 4 Hours/Week

Credit: 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- Creative & Logical thinking ability
- Basic understanding of Design and Aesthetics
- Basic Knowledge of Computer

Course Objectives:

- To understand aspects of digital design
- Learn to edit digital images
- To understand graphic design principles, theories, and practical skills

Course Outcomes:

- Students will have improved their visualization power to explore new ideas.
- Identify and explain the basic elements
- Learn the principles of design.
- Apply design principles and techniques to create cohesive visual identities and branding materials.
- Work on the design projects
- Improve their color sense and composition skills.

Course Contents

Chapter 1	Introduction to Graphic Terminologies	8 lectures
	● Vector and Raster Images ● File Formats ● Print Media and Digital Media	
Chapter 2	Design Principles	5 lectures

	• Principles of Design • Design Principles • Rules of Design	
Chapter 3	Color Theory	6 lectures
	• Color in Design • Color wheel and its significance • Color palette • Color Combinations	
Chapter 4	Typography	8 lectures
	• Understanding the anatomy of type • Principles of typography • Introduction to typefaces and font pairing	
Chapter 5	Layout and Composition	5 lectures
	• Grid systems and their applications • Creating balanced compositions	
Chapter 6	Digital and Print graphics	5 lectures
	• Working with vectors and raster Images • Designing for digital platform • Designing for print.	
Chapter 7	Final Project	4 lectures
	• Designing Digital as well as Print product	

Reference :-

How to Use Canva: A Beginner's Guide

SEMESTER IV

Progressive Education Society's
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(2024 Course under NEP 2020)

Major Paper (Theory)
Course Code : 24CsAnmU4101
Course Name : 3D Animation - II

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- Drawing Skills, Creative & Logical thinking ability
- Basic knowledge of Computer

Course Objectives:

- To understand about 3D Modeling
- To understand about 3D Technology

Course Outcomes:

On completion of the course, student will be able to–

- Students will have improved their visualization power to explore new ideas.
- Students will develop 3D Modeling skill.
- Students will be able to create professional 3D Designing.
- Students will be developed 3D knowledge and skills.
- Student Will be able to develop observations of movements.
- Student will be develop imagination power.

Course Contents

Unit 1	Animation	10 lectures
	• Set key, Auto key	

	• Time Slider • Range Slider • XYZ Positing, Rotation, Scale • Animation Principal	
Unit 2	Rigging, Constraints, and Deformers	6 lectures
	• Joint System • IK and FK System • Mirror Joint • Skeleton Menu • Types of Constraints • Types of Deformers • Skinning - Paint Weight Tool	
Unit 3	Particle and nParticleSystem	4 lectures
	• Emitter • Emit from object • Container 2D/3D • Particle Attributes • nParticle System • Fields - Air, Gravity • Render Particles	
Unit 4	Fluids	4 lectures
	• Emitter • Emit from object • Container • Fluid System • Fluid Attribute • Rendering	
Unit 5	nHair System	3 lectures
	• Create Hair • Paint Hair Follicles • Paint Hair Textures • Assign Hair System • Set Position • Hair Attribute • Rendering	
Unit 6	Rendering	2 lectures
	• Animation Rendering • Set Image Sequence • Set Frames • Batch Render • Composition using other software	
Unit 7	Experiential Learning	1 lecture

	Creating 3D Dynamics based on real life event	
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Reference books:

1. Introducing Autodesk Maya 2019 by Dariush Derakhshani - Publisher: Sybex
2. Learning Autodesk Maya 2019: A practical hands-on guide by Prof Sham Tickoo - Publisher: CADCIM Technologies
3. Maya Visual Effects: The Innovator's Guide by Eric Keller - Publisher: Sybex
4. Mastering Autodesk Maya 2019 by Todd Palamar - Publisher: Sybex
5. Maya for Games: Modeling and Texturing Techniques with Maya and Mudbox by Michael Ingrassia - Publisher: Sybex

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Second Year of B.Voc.(Animator and Vfx)
(2024 Course under NEP 2020)
Course Code : 24CsAnmU4102

Course Name : Production Process-II

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Basic Computer knowledge
- Video awareness.

Course Objectives:

- To understand production pipeline of animation movie
- To understand different stages of film production

Course Outcomes:

On completion of the course, student will be able to–

- Students will have improved their visualization power to explore new ideas.
- Plan and create animation film
- Students will be able to design characters and set for their ideas
- Create animatics
- Learn dynamic shot composition
- Obtain post production skills

Course Contents

Unit 1	Direction	4 lectures
	● Dissecting a film ● Shot and Scene ● Framing ● Perspective	

Unit 2	Layout Design	6 lectures
	• Technical and creative • Match Moving, Loop Pan, Zip Pan, • Expressions, Body Language ,Posing.	
Unit 3	Shot Composition	6 lectures
	• Types of Camera shots • Significance and utilization • Types of Camera angles • Significance and utilization	
Unit 4	Sound Design	6 lectures
	• Storytelling with sound • Using Sound effects • BG Music utilization	
Unit 5	Post Production	5 lectures
	• Sound design • Case studies of editing • Cuts and transitions • Marketing	
Unit 6	Experiential learning	3 lectures
	• Create a short film	

Reference books:

- Storyboard Design Course by Giuseppe Cristiano----Barron's Animator survival kit
- The Art of layout and storyboarding–Mark T.Byrne
- The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age (2013 Edition) by Steven Ascher and Edward Pincus
- Directing: Film Techniques & Aesthetics (Fifth Edition, 2013) by Michael Rabinger and Mick Hurbis-Cherrier

Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune - 5
Second Year of B.Voc Animator
(2024 Course under NEP 2020)
Major Paper Practical
Course Code : 24CsAnmU4103
Course Name : Lab Course on 24CsAnmU4101

Assignments List

Sr. No.	Assignment Name
1	Create Boll Rigging
2	Create A Bouncing Ball Animation
3	Create Pendulum Animation
4	Create Car rigging
5	Create FK Rigging in Human Character
6	Create Ik Rigging in Human Character
7	Create Character Walk Cycle
8	Create Character Run Cycle
9	Create Quadruped walk cycle
10	Cloth Simulation,Wall break Animation using Dynamics
11	Fluid Simulation
12	Create hairs on character

Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune - 5
Second Year of B.Voc Animator
(2024 Course under NEP 2020)
Course Code : 24CsAnmU4501

Course Name : Lab course on Digital Art

Teaching Scheme: TH: 4 Hours/Week

Credit : 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Students are required to have basic knowledge about computers.
- Students are required to understand file management (opening, saving, and organizing files).
- Students are required to know how to open the program and navigate the workspace.

Course Objectives:

- To Study the Interface of image editing software & Navigation
- To learn basic image Editing & Adjustments
- To learn principles of Design and how to apply them.

Course Outcomes:

On completion of the course, student will be able to–

- Understand Illustrator's Interface & Tools
- Will develop basic photo editing skills.
- Will have a better understanding of designing and composition.
- Understand color theory, gradients, layout and typography
- Export and save files for print, web, and social media.

Course Contents

Unit 1	Introduction to software	
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	● Interface Basic ● Pen Tool Techniques ● Brushes, Pattern Creation & Gradient Mesh ● Shape-Building	
Unit 2	Typography	
	● Custom Typography & Hand-Lettering in Illustrator ● Logo Design Principles & Advanced Branding Techniques	
Unit 3	Working with shapes	
	● Creating Vector art ● Perspective & Depth in Vector Art (Isometric Design) ● Creating Infographics	
Unit 5	Character & Object Illustration	
	● Making basic Icons ● Cartoon characters ● Stylized Illustrations ● Objects & Backgrounds	
Unit 6	Final Project & Portfolio Development	
	● Refining Artwork & Preparing for Digital Mockups	

Reference books:

Adobe Illustrator Classroom in a Book (Latest Edition)" – by Adobe Creative Team

The Digital Art Techniques for Beginners" – by Ellery Connell

Vector Basic Training: A Systematic Creative Process for Building Precision Vector Artwork" – by Von Glitschka

Reference links:

<https://creativecloud.adobe.com/discover/video/How-to-Use-AI-Reference-Images-to-Create-Digital-Artwork-Part-1/21157>

DeviantArt: <https://www.deviantart.com/>

ArtStation: <https://www.artstation.com/>

Practical List

Sr.no	Title
1	Combining Shapes to Create Objects & Backgrounds

2	Designing with Typography & Creative Text Effects
3	Designing a Basic Logo
4	Creating a Social Media Graphic or Sticker
5	Sketching & Creating Basic Cartoon Characters
6	Simple Vector Portraits & Stylized Illustrations
7	Designing infographics
8	Designing a book and preparing it for print.
9	Custom Brushes, Pattern Creation and use in design.
10	Designing Vector Assets for Animation
11	Designing Icons & UI Components for Websites/Apps
12	Creating an imaginary brand and designing its whole brand identity.

Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune - 5
Second Year of B.Voc.(Animator and VFX)
(2024 Course under NEP 2020)
Course Code : 24CsAnmU4301

Course Name : Screen Writing Project

Teaching Scheme: TH: 8 Hours/Week

Credit 04

Examination Scheme: CIA : 40 Marks

End-Sem : 60 Marks

Prerequisite Courses:

- Basic language skills
- Observational skills

Course Objectives:

- To study the significance of Screenwriting
- To develop a sense of visual writing and imagination
- To inculcate a routine that develops the craft of screenwriting

Course Outcomes:

On completion of the course, student will be able to–

- Express themselves more creatively
- Learn multiple theories and methods of Scriptwriting.
- Write in the standardised form of writing.
- Make optimum use of language and style.
- Appreciate various types of films and television shows.
- Seek employment in television, movie and ad fields.

Guidelines

- Individual project : The student must carry the project work individually. The Project must reflect creativity and originality of the student. The student may take help from other students and mention those respectively.
- The student must develop a bound script for a short film based on an original

story. The script must be written in the industry accepted format and printed in accordance with the same.

- Selection and approval of the theme and topic for the Script. For the final project The student may select any genre suitable that would help them express their writing skills.
- The term work assessment of ScreenWriting project shall be based on
 1. Innovative Idea of selected project
 2. Research behind the writing.
 3. Depth of understanding
 4. Pitch and Narration
 5. Project report
 6. Timely completion of work.
- The student should prepare a project plan and should follow accordingly
- A log book of work carried out during the semester should be maintained with weekly review remarks by the guide and committee.
- A certified copy of the report is required to be presented to the external examiner at the time of Practical examination.
- The project report must undergo a plagiarism check and the similarity index must be less than 15%. The plagiarism report should be included in the project report.

Reference Books :

- The handbook of Creative Writing : Steven Earnshaw
- Save the Cat by Blake Snyder
- Screenplay by Syd Field
- Writing Movies for Fun and Profit by Thomas Lennon and Robert Ben Garant

Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune - 5
SY OPEN ELECTIVE

Course Code :24CsAnmU4601
Course Name : Lab Course on e-content Development (Video Production)

Teaching Scheme: TH: 4 Hours/Week

Credit: 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

-  No prior video editing experience is required.
-  Basic computer skills and familiarity with multimedia files are helpful.

Course Objectives:

-  introduce students to basic video editing using Filmora.
-  To help students create engaging e-content for education and social media.
-  To develop skills in editing, adding effects, and publishing videos.
-  To provide hands-on experience through practical projects.

Course Outcomes:

-  Understand the basics of video editing and Filmora's tools.
-  Edit and enhance videos using transitions, text, effects, and sound.
-  Create high-quality educational or promotional content.
-  Export and publish videos on different online platforms.

Course Contents

Chapter 1	Introduction to Video Editing	6 lectures
	● Basics of video editing and its role in e-content development. ● Overview of Filmora: Features, Interface, and Navigation. ● Creating a new project and understanding project settings. ● Importing media: Videos, images, and audio files. ● Understanding video file formats and resolutions. ● Organizing assets in the media library and timeline.	
Chapter 2	Basic Editing Techniques	5 lectures

	• Timeline navigation and workspace customization. • Cutting, trimming, and splitting clips for structured content. • Using transitions to enhance storytelling. • Adding text, captions, and subtitles for engagement. • Adjusting speed control: Slow-motion and fast-forward effects. • Basic color correction and filter application.	
Chapter 3	Audio Editing & Voiceovers	6 lectures
	• Adding and adjusting background music. • Voiceover recording and synchronizing with video. • Using audio effects and noise reduction. • Adjusting audio levels and sound balance.	
Chapter 4	Special Effects & Motion Graphics	8 lectures
	• Introduction to advanced effects in Filmora. • Using Green Screen (Chroma Key) techniques. • Picture-in-Picture (PIP) effects for tutorials. • Motion tracking and keyframing for animations. • Adding animated elements and motion graphics. • Screen recording for tutorial-based content.	
Chapter 5	Exporting & Publishing Content	5 lectures
	• Choosing the right export settings for different platforms. • Optimizing videos for YouTube, social media, and e-learning platforms. • Understanding copyright laws and using royalty-free assets. • Uploading and managing content on YouTube, LMS, and social media.	
Chapter 6	Practical Application & Final Project	5 lectures
	• Planning a real-world e-content project. • Hands-on project editing and refinement. • Final review, feedback, and corrections. • Presentation and project submission. • Final Project	

Reference :

Filmora Efficient Editing user Guide ISBN-13: 978-1801814201

Master Filmora: Complete Video Editing Tutorial by Howfinity

In-Depth Tutorial on Editing with Filmora X

SR.No.	Assignment
1	Motion Graphics (Any Product)
2	Youtube Video Edit
3	Instagram Reel Edit
4	Advertising Editing
5	B roll Editing
6	Wedding invitation Edit
7	Vlog Edit
8	Logo Reveal Animation
9	Kinetic typography
10	Youtube Short Content Edit
11	Youtube Intro Design
12	Short film Edit and Shoot

Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune - 5
SY OPEN ELECTIVE
(2024 Course under NEP 2023)
Course Code :24CsAnmU4601

Course Name : Video Production

Teaching Scheme: TH: 2 Hours/Week

Credit: 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- No prior video editing experience is required.
- Basic computer skills and familiarity with multimedia files are helpful.

Course Objectives:

- Introduce students to basic video editing using Filmora.
- To help students create engaging e-content for education and social media.
- To develop skills in editing, adding effects, and publishing videos.
- To provide hands-on experience through practical projects.

Course Outcomes:

- Understand the basics of video editing and Filmora's tools.
- Edit and enhance videos using transitions, text, effects, and sound.
- Create high-quality educational or promotional content.
- Export and publish videos on different online platforms.

Course Contents

Chapter 1	Introduction to Video Editing & Filmora	6 lectures
	● Basics of video editing and its role in e-content development. ● Overview of Filmora: Features, Interface, and Navigation. ● Creating a new project and understanding project settings. ● Importing media: Videos, images, and audio files. ● Understanding video file formats and resolutions. ● Organizing assets in the media library and timeline.	
Chapter 2	Basic Editing Techniques	5 lectures
	● Timeline navigation and workspace customization. ● Cutting, trimming, and splitting clips for structured content. ● Using transitions to enhance storytelling. ● Adding text, captions, and subtitles for engagement.	

	• Adjusting speed control: Slow-motion and fast-forward effects. • Basic color correction and filter application.	
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2	Youtube Video Edit
3	Instagram Reel Edit
4	Advertising Editing
5	B roll Editing
6	Wedding invitation Edit
7	Vlog Edit
8	Logo Reveal Animation
9	Kinetic typography
10	Youtube Short Content Edit
11	Youtube Intro Design
12	Short film Edit and Shoot