

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. Sc. (Animation)

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)	24CsAniU1101	Graphic Designing I	2		2		20	30	50
	24CsAniU1102	Lab Course on Graphic Designing I		2		4	20	30	50
Subject 2 T(2)+ (T/P) (2) or T(4)	24CsAniU1201	2D Animation I	2		2		20	30	50
	24CsAniU1202	Lab Course on 2D Animation		2		4	20	30	50
Subject 3 T(2)+ (T/P)(2) or T(4)	24CsAniU1301	Computer Application –I (Web Technology : HTML , Adv HTML)	2		2		20	30	50
	24CsAniU1302	Lab Course on 24CsAniU1101		2		4	20	30	50
IKS T(2)	24CpCopU1901	Generic IKS	2		2		20	30	50
GE/OE (T/P) (2)	24CsAniU1401	Lab Course on Foundation Art		2		4	20	30	50
SEC (P) (2)	24CsAniU1601	Lab Course on Foundation Art		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			12	10	12	10			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)	24CsAniU2101	Graphic Designing II	2		2		20	30	50
	24CsAniU2102	Lab Course on 24CsAniU2101		2		4	20	30	50
Subject 2 T(2)+ P(2)	24CsAniU2201	2D Animation II	2		2		20	30	50
	24CsAniU2202	Lab Course on 24CsAniU2201		2		4	20	30	50
Subject 3 T(2)+ P(2)	24CsAniU2301	Computer Application –II (C Programming)	2		2		20	30	50

	24CsAniU2302	Lab Course on 24CsAniU2101		2		4	20	30	50
GE/OE (T/P)(2)	24CsAniU2401	Lab Course on Calligraphy & Typography	2		2		20	30	50
SEC P(2)	24CsAniU2601	Lab Course on Introduction to 3D Design		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			14	08	14	16			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)	24CsAniU3101	Elements of 3D Designing I	2		2		20	30	50
	24CsAniU3102	Graphic Design	2		2		20	30	50
	24CsAniU3103	Lab Course on 24CsAniU3101 & 24CsAniU3102		2		4	20	30	50
VSC P(2)	24CsAniU3501	Lab Course on Digital Editing		2		4	20	30	50
IKS (T/P)(2)	24CsAniU3901	Indian Art Culture	2		2		20	30	50
FP P(2)	24CsAniU3002	Field Project I		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24CsAniU3301	Computer Application –II (Object Oriented Programming)	2		2		20	30	50
	24CsAniU3302	Lab Course 24CsAniU3301		2		4	20	30	50
GE/OE (T/P)(2)	24CsAniU3401	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			12	10	12	20			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)	24CsAniU4101	Elements of 3D Animation	2		2		20	30	50
	24CsAniU4102	Motion Graphics	2		2		20	30	50
	24CsAniU4103	Lab Course on 24CsAniU4101 & 24CsAniU4102		2		4	20	30	50
VSC P(2)	24CsAniU4501	Lab Course on Creative Writing		2		4	20	30	50
CEP P(2)	24CsCopU4003	Community Engagement Project		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24CsAniU4301	Computer Application –II (Java Script)	2		2		20	30	50
	24CsAniU4302	Lab Course on 24CsAniU4301		2		4	20	30	50
GE/OE (T/P) (2)	24CsAniU4401	Lab Course on e-content Development (Video Production)		2		4	20	30	50
SEC T(2)	24CsAniU4601	Production Process	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			12	10	12	20			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)	24CsAniU5101	Game Designing I	2		2		20	30	50
	24CsAniU5102	VFX I	2		2		20	30	50
	24CsAniU5103	Digital Photography	4		4		20	30	50
	24CsAniU5104	Lab Course on 24CsAniU5101		2		4	20	30	50
	24CsAniU5105	Lab Course on 24CsAniU5102		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24CsAniU5201	Advanced 3D Animation	2		2		20	30	50
	24CsAniU5203	Lab Course on 24CsAniU5203		2		4	20	30	50
	24CsAniU5203	Digital Audio Work (Sound Recording)	2		2		20	30	50
	24CsAniU5204	Lab Course on 24CsAniU5203		2		4	20	30	50
VSC P(2)	24CsAniU5501	Lab Course on Simulation and Dynamics		2		4	20	30	50

FP (2)	24CsAniU5001	Field Project II		2		4	20	30	50
Minor (T/P) (2)	24CsAniU5302	Lab Course on Computer Application –III (C#)	2		2		20	30	50
Total			12	10	12	20			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)	24CsAniU6101	Game Production II	2		2		20	30	50
	24CsAniU6102	VFX II	2		2		20	30	50
	24CsAniU6103	Cinematography	4		4		40	60	100
	24CsAniU6105	Lab on 24CsAniU6101		2		4	20	30	50
	24CsAniU6106	Lab on VFX II		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24CsAniU6201	Animation Techniques (Compositing)	4		4		40	60	100
	24CsAniU6203	Sound Processing	2		2		20	30	50
	24CsAniU6204	Lab Course on 24CsAniU6203		2		4	20	30	50
VSC P(2)	24CsAniU6501	Lab Course on e-Journalism		2		4	20	30	50
OJT (2)	24CsAniU6004	On Job Training		4		8	40	60	100
Total			10	12	10	24			550

SEMESTER III

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(2024 Course under NEP 2020)

Major Paper (Theory)
Course Code : 24CsAniU3101
Course Name : Elements Of 3D Design - 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	6 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	3 lectures
	● Normals ● UVW Map ● Unwrap UVW ● UV Editor ● Types of UVW Mapping ● Export UVW Map	
Unit 5	Shading and Texturing	3 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	2 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 Bsc. (Animation)

(2024 Course under NEP 2020)

Course Code: 24CsAniU3102

Course Name : Graphics Design

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- Creative & Logical thinking ability
- Basic knowledge of photography

Course Objectives:

- To understand working of Video camera
- To understand different aspects of Cinematography

Course Outcomes:

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

- Students will have improved their visualization power to explore new ideas.
- Operate a Video camera
- Obtain Framing and composition skills
- Learn Composition and framing rules
- Manage a professional Studio setup
- Obtain post processing skills

Course Contents

Unit 1	Introduction to Graphic Design	3 lectures
	1. Understanding Graphic Design: Definition, history, and evolution. 2. Principles of Graphic Design: Balance, contrast, unity, emphasis, rhythm, and proportion. 3. Design Process: Research, ideation, sketching, and execution.	

	4. Types of Graphic Design: Print design, web design, branding, packaging, and more.	
Unit 2	Design Elements	5 lectures
	1. Typography: Font types, font pairing, and legibility. 2. Color Theory: Understanding primary, secondary, and tertiary colors, color harmony, and psychological impact. 3. Shapes and Lines: How they impact design, the use of geometric vs. organic shapes. 4. Textures: How texture influences visual appeal. 5. Images and Icons: Role and best practices in using visuals	
Unit 3	Introduction to Adobe Illustrator	3 lectures
	● Getting Started with Illustrator: Interface, tools, and navigation. ● Working with Documents: Creating new projects, setting up artboards, and working with templates. ● Basic Drawing Tools: Introduction to the pen tool, shape tools, and pathfinder tool. ● Selecting and Editing Objects: Using selection tools, direct selection, and transformation tools. ● Understanding Layers: Organizing artwork using layers for efficient editing. ●	
Unit 4	Working with Shapes and Paths	5 lectures

	● Basic Shapes: Creating and modifying shapes using the shape tool. ● Paths and Anchor Points: Understanding vector paths, anchor points, and handles. ● Editing Paths: Using the pen tool, anchor point tool, and path selection tool. ● Shape Building and Manipulation: Combining and subtracting shapes using the Pathfinder tool. ● Curves and Complex Paths: Creating smooth curves and modifying paths with precision.	
Unit 5	Color Theory and Gradients	4 lectures
	● Color Theory Basics: Primary, secondary, and tertiary colors, color harmony, and color schemes. ● Applying Color: Using color fills and strokes in illustrations. ● Creating Gradients: Linear and radial gradients, color blending, and gradient editor. ● Color Swatches and Libraries: Saving and using color swatches, creating custom color palettes. ● Opacity and Transparency: Working with opacity settings and blending modes for advanced coloring techniques.	

Unit 6	Working with Text	3 lectures
	• Type Tool and Text Formatting: Using the type tool to create and format text. • Text on a Path: Curving and transforming text along paths. • Creating Text Effects: Applying effects, such as 3D text and text shadows. • Typography Basics: Understanding font styles, kerning, tracking, and leading. • Converting Text to Outlines: Turning text into vector shapes for more control and manipulation.	
Unit 7	Creating Patterns, Brushes, and Textures	4 lectures
	• Creating Custom Patterns: Designing and applying seamless patterns. • Working with Brushes: Using and creating custom brushes for unique strokes and effects. • Texture Mapping: Adding textures to illustrations for a more organic look. • Working with Symbols: Using symbols for repetitive elements and creating symbol libraries. • Effects and Styles: Applying and customizing graphic styles for consistent design.	
Unit 8	Final Project and Portfolio Development	3 lecture
	• Final Project: Students work on a final project where they apply the skills learned throughout the course to create a comprehensive illustration (e.g., poster, digital art, or a set of icons). • Portfolio Development: Building a professional portfolio with selected projects from the course.	

	• Project Presentation: Presenting the final project and discussing the design choices made during its creation.	
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Reference Book :

Graphic Design: The New Basics by Authored by Ellen Lupton and Jennifer Cole Phillips,ISBN: 978-1-56898-770-5.

The Graphic Design Idea Book: Inspiration from 50 Masters ISBN: 978-1-78067-756-9.

The Fundamentals of Graphic Design ISBN: 978-2-940373-00-1.

Major Paper Practical
Course Code : 24CsAniU3103
Course Name : Lab Course on 24CsAniU3101 & 24CsAniU3102

Teaching Scheme: TH: 4 Hours/Week

Credit 02

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Assignment List for 24CsAniU3101

Sr. No.	Assignment Name
1	Create any Basic Polygonal Model & NURBS Model
2	Create Lamp model
3	Design Cartoon Character
4	Create Human and 4 leg Animal Character
5	Design car Model
6	Create Interior/Exterior Model add Camera animation

Practical List for 24CsAniU3102

Sr. No.	Name of the experiment
1	Vector Art
2	Logo
3	Mandala Art
4	Self Portrait
5	Character Turn Around
6	Portfolio

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Second Year of B.Sc. (Animation)
(2024 Course under NEP 2020)
Course Code : 24CsAniU3501
Course Name : Lab Course on Digital Editing

Teaching Scheme: TH: 4 Hours/Week

Credit :04

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Creative & Logical thinking ability
- Basic knowledge of Photography

Course Objectives:

- To understand Digital Editing techniques
- 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.
- Edit and Render the digital videos
- Students will be able to Create their own films

Course Contents

Chapter 1	Introduction to digital Editing	5 lectures
	• Video Editing • Different Types of Video Editing • Modern Non-linear Editing • Evolution of Modern Non-linear Editing • Evolution of Digital Non-linear Editing • Principal of Video Editing	
Chapter 2	Non-Linear Editing	8lectures

	• Introduction to Adobe Premier pro • Interface of premier pro • Importing Video • Storyboard techniques • Tools	
Chapter 3	Editing	8 lectures
	Aspect Ratio Analysis of film sequence from editing point of view • Jump cut & 180 degree rule • Walk & reveal framing • Fill & Reveal framing • Flash cuts & collage • Sub –clip • Split Screen • Montage Sequence • Cut/zoom Shots • Multi takes • Cut Away • Freeze Frames • Cross cut edits • Match cut • Subliminal cuts • Slow/Fast motion • J-cuts • L-cuts • studying various techniques of video editing	
Chapter 4	Introduction to Effects	8 lectures
	• Audio & Video Effects • Audio & Video Transition • Synchronizing Audio • Editing Audio • Incorporating Transitions into the editing process	
Chapter 5	Introduction to Titles	3 lectures
	• Titles & Still Graphics • Creating tiles for video • Incorporating titles into video production • Templates • Output • Various Types of Output	
Chapter 5	Introduction to Sound Equipment	1 lecture
	• Audio Signal Routing	

	• Recording methods and workflow • Microphones: Studios and Acoustics • Study of location recording equipment and workflows • Dialogue recording on location	
Chapter 6	Sound Recording in Audacity	6 lectures
	• Production sound to DAW • Introduction to Audacity • Studying the interface of Audacity • Sound recording process • Stereo & Mono Sound tracks	
Chapter 7	Foley Sound	3 lectures
	• Study of Foley sound • Equipment used for Foley sound • Recording of Foley sound • Mixing of Foley sound	

Reference Book:

- The Art of Music Production: The Theory and Practice, Burgess, Richard, J., Oxford University Press (2013)
- The Recording Engineer's Handbook, Owsinski, Bobby, Cengage Learning PTR (2013)
- Audio Engineering 101: A Beginner's Guide to Music Production, Dittmar, Tim, Focal Press (2011)
- What is Music Production? A Producers Guide: The Role, the People, the Process, Hepworth-Sawyer, Russ and Golding, Craig, Focal Press (2010)
- Creative Recording Volume 1: Effects and Processors, White, Paul, Music Sales America (2006)
- Creative Recording Volume 2: Microphones, Acoustics, Soundproofing and Monitoring, White, Paul, Music Sales

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Second Year of B.Sc. Animation
NEP 2024 Pattern

Subject Specific Indian Knowledge System (IKS)

Course Code : 24CsAniU3901
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.Sc. (Animation)
(2024 Course under NEP 2024)
Course Code : 24CsAniU3301
Course Name : Computer Application II
(Object Oriented Programming)

Teaching Scheme: TH: 2 Hours/Week

Credit: 2

Examination Scheme: CIA: 20 Marks

End-Sem: 30 Marks

Prerequisite Courses:

- Object oriented Concepts
- Programming Concepts

Course Objectives:

- To understand the basic concepts of OOP's.
- To study the usage of Class using OOP's Concepts.
- To study how to access Functionality of C in CPP.
- To study validations in Programming.
- To study mathematical Operations.
- To Study the Logical reasoning of CPP.

Course Outcomes:

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

- Apply Functions and OOP's concepts.
- Create Classes and Objects.
- Understand Inheritance and Polymorphism concepts while creating a class.
- Analyze the process of Object oriented programming.
- Evaluate their own Logics.
- Recall the OOP's Concepts.

Chapter 1	Introduction to Object Oriented Concepts	2 lectures
	● Object Oriented Concepts ● Features of OPPs ● Advantages and Applications of OPPs ● Difference between Procedure oriented and object oriented Programming	
Chapter 2	Introduction to CPP (C++)	2 lectures

	- Basics of C++ - Keywords in C++, Structure of C++ program - Data types, new operator, keywords, namespace - Introduction to reference variable, this pointer	
Chapter 3	Classes and Objects	3 lectures
	- Structure and Class - Objects, access specifiers. - Class members - Defining member functions : Inside and outside the class definition - Creating objects, string class, operations on string, Array of Objects 'this' pointer	
Chapter 4	Functions in C++	3 lectures
	- Call by reference, return by reference - Function overloading and default arguments - Inline function - Passing and returning objects from function. - Friend concept – Friend Function, Friend Class	
Chapter 5	Constructors and Destructors	4 lectures
	- Definition of constructor, Types of constructors : Default constructor - Constructor with default arguments - Parameterized Constructor - Copy Constructor - Destructor	
Chapter 6	Operator Overloading	3 lectures
	- Introduction to operator overloading. - Introduction to function overloading. - Comparison of operator overloading and overriding, - Overloading new and delete operators.	
Chapter 7	Inheritance	4 lectures
	- Introduction - Types of inheritance with examples : Single, multiple, multilevel, hierarchical, hybrid. - Constructors and destructors in derived classes	
Chapter 8	Virtual Function and Polymorphism	4 lectures
	- Introduction - Class, overloading member functions - Virtual base classes, Abstract base classes - Virtual functions - Run-time type information (RTTI)	
Chapter 9	Working with files	2 lecture
	- File operations, Text files, Binary files - File Stream class and methods - File handling functionalities with class.	

Chapter 10	Templates	2 lecture
	• Introduction to templates . • Class templates, function templates and overloading of function templates.	
Chapter 11	Exception Handling in C++	2 lectures
	• Exception handling mechanism • Try block • Catch block • The Try / Throw / Catch sequence	

Reference books:

- Object Oriented Programming with C++ by Robert Lafore
- Object Oriented Programming with C++ by E. Balaguruswamy
- Object Oriented Modeling and Design by James Rumbough
- The Complete Reference C++ by Herbert Schildt
- Let us C++ by Yashwant Kanitkar
- Mastering C++ by Venugopal, T. Ravishankar, Rajkumar THM Pub.
- Trouble free C++ by Harimohan Pande ANE Publication
- Thinking in C++ 2nd Edition by Bruce Eckel, Prentice Hall Pub.

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Second Year of B.Sc. (Animation)
(2024 Course under NEP 2024)
Course Code : 24CsAniU3302
Course Name : Lab course on Computer Application II
(Object Oriented Programming)

Teaching Scheme: TH: 4 Hours/Week

Credit 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Object oriented Concepts
- Programming Concepts

Course Objectives:

- To understand the basic concepts of OOP's.
- To study the usage of Class using OOP's Concepts.
- To study how to access Functionality of C in CPP.
- To study validations in Programming.
- To study mathematical Operations.
- To Study the Logical reasoning of CPP.

Course Outcomes:

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

- Apply Functions and OOP's concepts.
- Create Classes and Objects.
- Understand Inheritance and Polymorphism concepts while creating a class.
- Analyze the process of Object oriented programming.
- Evaluate their own Logics.
- Recall the OOP's Concepts.

Practical List

Practical 1	Write a C++ program to find the area of a circle.
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Practical 2	Write a C++ program using switch statement which accepts two integers and an operator as (+, -, *, /) and performs the corresponding operation and displays the result.
Practical 3	Create a class named „DISTANCE“ with: - feet and inches as data members. The class has the following member functions: - To input distance - To output distance - To add two distance objects Write a C++ program to create objects of DISTANCE class. Input two distances and output the sum.
Practical 4	Write a C++ program to create a class employee having empno, name, basic, da, hra, allowances. Write necessary member functions to accept and display details of employees. And generate a payslip using appropriate manipulators for formatted display.
Practical 5	Write a C++ program to print an area of circle, square and rectangle using an inline function.
Practical 6	Write a C++ program to create two classes Rectangle1 and Rectangle2. Compare the area of both the rectangles using the friend function.
Practical 7	Write a C++ program to create a class Person that contains data members as Person_Name, City, Mob_No. Write a C++ program to perform following functions: - To accept and display Person information - To search the mobile number of a given person - To search the Person details of a given mobile number (Use Function Overloading)
Practical 8	Write a C++ program to overload function volume and find volume of cube, cylinder and sphere.
Practical 9	Define a class string to perform different operations: a. To find the length of the string. b. To concatenate two strings. c. To reverse the string.

	d. To compare two strings.
Practical 10	Write a C++ program to create a class Mobile which contains data members as Mobile_Id, Mobile_Name, Mobile_Price. Create and Initialize all values of Mobile object by using parameterized constructor. Display the values of Mobile object where Mobile_price should be right justified with a precision of two digits.
Practical 11	Design a two base classes Employee(Name, Designation) and Project(Project_Id, title). Derive a class Emp_Proj(Duration) from Employee and Project. Write a menu driven program to a. Build a master table. b. Display a master table c. Display Project details in the ascending order of duration.
Practical 12	Design a base class Item(Item_Id, Item_Name, Price). Derive a class Discount (Discount_In_Percentage) from Item. A customer buys „n“ items. Calculate total price, total discount and display bill using appropriate manipulators.

Reference books:

- Object Oriented Programming with C++ by Robert Lafore
- Object Oriented Programming with C++ by E. Balaguruswamy
- Object Oriented Modeling and Design by James Rumbough
- The Complete Reference C++ by Herbert Schildt
- Let us C++ by Yashwant Kanitkar
- Mastering C++ by Venugopal, T. Ravishankar, Rajkumar THM Pub.
- Trouble free C++ by Harimohan Pande ANE Publication
- Thinking in C++ 2nd Edition by Bruce Eckel, Prentice Hall Pub.

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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

SR.No.	Assignment
1	Social Media poster (insta,Linkedin,Facebook)
2	Youtube Thumbnail
3	Flyer Design
4	Magazine Cover Design
5	Book Cover Design
6	Product Advertising
7	Visiting Card
8	Calendar Design
9	Logo Design
10	Brand Guideline Design
11	Invitation Card Design
12	T Shirt Design

SEMESTER IV

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

Major Paper (Theory)
Course Code : 24CsAniU4101
Course Name : Element of 3D Animation

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	8 lectures
	• Set key, Auto key • Time Slider • Range Slider • XYZ Positing, Rotation, Scale • Animation Principal	
Unit 2	Rigging, Constraints, and Deformers	8 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	6 lectures
	• Emitter • Emit from object • Container 2D/3D • Particle Attributes • nParticle System • Fields - Air, Gravity • Render Particles	
Unit 4	Fluids	3 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	3 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	

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.Sc. (Animation)
(2024 Course under NEP 2020)
Course Code : 24CsAniU4102
Course Name : Motion Graphics

Teaching Scheme: TH: 02 Hours/Week

Credit : 2

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Creative & Logical thinking ability
- Basic knowledge of Photography

Course Objectives:

- To understand the application of graphics & motion graphics
- To understand Motion Graphics techniques
- To understand different stages of film production
- To understand and develop strong graphic design skills, including an understanding of color theory, typography, layout, and composition.
- To Understand and acquire 3D modeling and animation, enabling to create three-dimensional motion graphics and visual effects.
- Students will develop the ability to creatively solve design and technical challenges that arise during the production of motion graphics projects.

Course Outcomes:

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

- Students will have improved their visualization power to explore new ideas.
- Edit and Render the digital videos
- Students will understand and apply principles of animation and Motion graphics
- Students will develop graphic design skills and apply principles of typography, color theory, composition, and visual hierarchy to create visually appealing graphics and animations.
- Students will understand the role of motion graphics in visual storytelling and effectively use motion graphics to convey messages, tell stories,
- Students will develop a portfolio of motion graphics projects that showcase their skills,

Course Contents

Unit 1	Motion Graphics – A perspective	5 lectures
	● History of Motion Graphics ● Motion Graphics in Film & Television ● Pictorial Composition ● Constructing spaces, space & composition ● Principles of composition	
Unit 2	Sequential Composition	7 lectures
	● Forms of Continuity ● Forms of Discontinuity ● Montage	
Unit 3	Introduction to Adobe After Effect	10 lectures
	● Introduction to Interface ● Working with Mask ● Animating Mask ● Several tricks used for Rotoscope	
Unit 4	Animating Layer	7 lectures
	● Introduction to layers ● Types of Layer ● Properties of Layer ● Motion Graphics used in Advertisements ● Motion Graphics in News & Entertainment	
Unit 5	Animation Process	8 lectures
	● Frame by frame Animation ● Interpolation ● Types of Interpolation ● Coordinating Movement ● Tracker ● Types of Trackers	
Unit 6	Motion Graphics Composition	10 lectures
	● Composition ● Layering ● Chroma Setup	

	• Alpha Channels • Color Correction • Nesting • Set Composition • Blend Operation	
Unit 7	Experiential Learning	1 lecture
	Advertisement / news documentary	

Reference books:

1. Motion Graphics Design Applied History & Aesthetic By John Krasner
2. Design for Motion: Fundamentals & Techniques of motion design By Austin Show
3. Adobe After Effect CC classroom in a book

Major Paper Practical
Course Code : 24CsAniU4103
Course Name : Lab Course on 24CsAniU4101 & 24CsAniU4102

Assignments List for 24CsAniU4101

Sr. No.	Assignment Name
1	Create A Bouncing Ball Animation
2	Create Pendulum Animation
3	Create Ik-FK Rigging in Human Character
4	Create Character Walk Cycle
5	Create Quadruped walk and Run cycle
6	Cloth Simulation, Wall break Animation using Dynamics

Assignment List for 24CsAniU4102

Sr.no.	Assignment name
1	Make a 1-minute Advertisement of "Selling a product" by using motion graphics Technique.
2	Create a motion graphics of an informative video Using the movement of text and Shape.
3	Make a Digital Resume (Self Informative Motion Graphics)
4	Choose the following Topic and make advertisement videos Using motion graphics. Topic is Corruption/Admission in College/Save Water/ Mobile Application.
5	Create a Minimum 10 Sec. Animated logo clip of your name from text and shapes.
6	Change the background by using rotoscopy technique. Take a video for roto minimum 70/100 frames.
7	Create a motion graphics of movie Title, Subtitle & Credit List from different text font and shapes.
8	Create a News Video Clip from Chroma technique and use in terms of Lower third, Mortises, Sting and Motion graphics
9	Make a motion graphics E-Content Video on Any Educational Topic and Synchronize the Audio.
10	Create a Character Animation. Animate the Different Body parts of a character in Adobe after Effect
11	Compose a Chroma scene and Animate its camera.
12	Camera Tracker

13	Using multipoint tracking
14	Day to Night Conversion
15	Creating a particle simulation

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Second Year of B.Sc.(Animation)
(2024 Course under NEP 2020)

Course Code : 24CsAniU4501

Course Name : Lab Course in Creative Writing

Teaching Scheme: TH: 2 Hours/Week
Examination Scheme: CIA : 20 Marks

Credit 02
End-Sem : 30 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.

Course Contents

Unit 1	Introduction	
	● The word 'creative' ● Patterns , Ideas and Solutions.	

	• Creativity as a skill • Importance of grammar and style	
Unit 2	Theories and methods	
	• Brainstorming • Vertical and lateral thinking • Design and redesign	
Unit 3	Modes for creative writing	
	• Fiction • Drama • Poetry and Spoken Word • Copywriting • Screenwriting	
Unit 4	Creative exercises	
	• Prompts • Visual Exercises • Character building. • Dialogue writing	

Sr No.	Assignment topic
1	Rewrite a film story
2	Write a copy for a short ad film
3	Write a poem on a subject of your choice.
4	Rewrite a song with different lyrics
5	Write a script based on your actual experience
6	Write and Perform a short skit
7	Write a satirical comic from your daily observation.
8	Write a creative dialogue between non-living characters.
9	Write a scene that creates suspense and drama

10	Write a Monologue for a character
11	Write a script for a Stop Motion animation
12	Write a Short Play with 4 or more characters

Reference Books :

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

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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Second Year of B.Sc. (Animation)
(2024 Course under NEP 2024)
Course Code : 24CsAniU4301

Course Name : Computer Application II
(JavaScript)

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA : Marks

End-Sem : Marks

Prerequisite Courses:

- Object oriented Concepts
- scripting Concepts

Course Objectives:

- To understand the basic concepts of javascript and its applications.
- To study the usage of Javascript Functions
- To study how to access HTML elements in Javascript
- To study validations in Javascript
- To study Event Handling.
- To study SDK.

Course Outcomes:

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

- Apply HTML and CSS in Javascript.
- Create Simple Webpages using Javascript.
- Understand Events that Occurs while Development.
- Analyze Javascript and HTML DOM.
- Remember the Basic programming structure.
- Evaluating code for optimization, quality, and efficiency.

Course Contents

Unit 1	Introduction	2 lectures
	● Introduction to Javascript ● Applications of Javascript ● Features of Javascript	
Unit 2	Working with HTML and CSS	3 lectures
	● Working with HTML form and its elements ● Set CSS properties in Javascript ● Introduction to Static and Dynamic Web Page Design.	
Unit 3	Javascript Syntax	3 lectures
	● Statements and Variables ● Javascript Objects ● Data Types ● Operators ● Program Syntax ● Comments	
Unit 4	Control Statements	3 lectures
	● Conditional Statements ➤ if statement ➤ if else statement ➤ Switch statements ● Iterative Statements(Loops) ➤ for loop ➤ while loop ➤ do while loop	
Unit 5	Functions in Javascript	4 lectures
	● What is Functions ● Built-in functions and user defined functions ● Function declaration ● Function calling ● Function return	
Unit 6	String and Arrays	4 lectures
	● What are Strings ? ● Declaration of string ● String Methods ● What are Arrays? ● How to declare arrays ● Array Methods	
Unit 7	Events and Event Handling	4 lectures

	● Concept of events ● Event handlers ● Event attribute	
Unit 8	Javascript and HTML DOM	4 Lectures
	● Introduction to DOM ● DOM HTML ● DOM Forms ● Form Validations	
Unit 9	Javascript Libraries and tools	3 lectures
	● 2D Animations (Anime.js) ● 3D Animation (three.js) ● Text Animation (animate CSS)	

Reference books:

- HTML,CSS and Javascript All in one
- Head First JavaScript Programming : A Brain Friendly Guide by Elisabeth Robson
- W3School site

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Second Year of B.Sc. (Animation)
(2024 Course under NEP 2024)
Course Code : 24CsAniU4302

Course Name : Lab course on 24CsAniU4301

Teaching Scheme: TH: 2 Hours/Week

Credit 02

Examination Scheme: CIA : 20 Marks

End-Sem : 30 Marks

Prerequisite Courses:

- Object oriented Concepts
- scripting Concepts

Course Objectives:

- To understand the basic concepts of javascript and its applications.
- To study the usage of Javascript Functions
- To study how to access HTML elements in Javascript
- To study validations in Javascript
- To study Event Handling.
- To study SDK.

Course Outcomes:

On completion of the course, student will be able –

- Apply HTML and CSS in Javascript.
- Create Simple Webpages using Javascript.
- Understand Events that Occurs while Development.
- Analyze Javascript and HTML DOM.
- Remember the Basic programming structure.
- Evaluating code for optimization, quality, and efficiency.

Practical List

Practical 1	Create Form using HTML and Apply CSS to it. Use all three types of CSS.
Practical 2	Write a program to perform Multiplication of two Numbers using JavaScript. Take numbers from user.
Practical 3	Write a program to perform addition, subtraction, multiplication, division, calculate reminder, using Switch case.
Practical 4	Write A program to Swap two numbers.
Practical 5	Write a program to check whether the number is a prime number.
Practical 6	Write a program to calculate the area of circle, rectangle and square.
Practical 7	Write a program to print the following output:- <pre> * * * * * * * * * * * * * * *</pre>
Practical 8	Write a program to Check whether the number is a palindrome number.
Practical 9	write a program to take two string from user and perform following string methods:- ● calculate the string length ● merge or concat the two strings ● repeat and replace the string ● delete some character of the string ● convert the string to lower/upper case.
Practical 10	Write a C# program to create an array and:- ● find length of the array ● reverse the array ● delete and add the element ● Copy the array elemets
Practical 11	Write a program to perform different mouse events and also display the current time and date.
Practical 12	Write a program to calculate factorial of a number using HTML DOM.

Reference books:

- HTML,CSS and Javascript All in one
- Head First JavaScript Programming : A Brain Friendly Guide by Elisabeth Robson
- W3School site

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SY OPEN ELECTIVE
(2024 Course under NEP 2020)
Course Code :24CsAnmU4401

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 & 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.	
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

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Second Year of B.Sc.(Animation)
(2024 Course under NEP 2020)
Course Code : 24CsAniU4601

Course Name : Production Process

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 introduce basics of video production
- To introduce the production pipeline
- To develop visualization and application skills for production.
- To obtain post production skills
- To learn Dynamic shot composition
- To gain overall experience on film composition

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 write and design characters and Backgrounds.
- 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 and Design	6 lectures
	• Period/Location , Society • Costumes, Props • Character Bible and Design • Different types of Character • Character Proportion • Costume • Color moods • Location, Plan • Establishing BG	
Unit 3	Storyboard and Animatic	6 lectures
	• Importance of storyboarding • Language of storyboards • Line Testing • Animatic	
Unit 4	Direction	6 lectures
	• Shot and Scene • Framing and Perspective • Camera Angle • Camera Movement • Camera Shots	
Unit 5	Post Work	5 lectures
	• Editing Basics • Transitions • Vfx • Use of Music and Rhythm • Dialogue • Rendering	
Unit 6	Experiential learning	3 lectures
	• Creating 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
- Force: Character Design from Life Drawing by Mike Matessi

- The Art of the Cut: Editing Concepts Every Filmmaker Should Know (by Greg Keast)
- Adobe Premiere Pro 2024 Applications by Patti Mollica:Publisher: Walter Foster Publishing (by McBunny Albert)
- Digital cinema scissors - chapters of creative film and video editing (by D.Yashvanthan)