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

(Affiliated to Savitribai Phule Pune University, Pune)

Choice Based Credit System (CBCS)

Bachelor of Science (B. Sc.)

Syllabus of
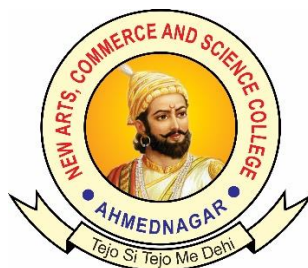
T. Y. B. Sc. Animation

Implemented from

Academic Year 2023 - 24

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)

3. Programme Structure and Course Titles: (All academic years)

Sr. No.	Class	Semester	Course Code	Course Title	Credits
1.	F. Y. B. Sc.	I	BSC-AN 101 T	Basics of Animation-I	02
2.	F. Y. B. Sc.	I	BSC-AN 102 T	Foundation of Art	02
3.	F. Y. B. Sc.	I	BSC-AN 103 T	Digital Graphics-I	02
4.	F. Y. B. Sc.	I	BSC-AN 104 T	Programming Languages-I	02
5.	F. Y. B. Sc.	I	BSC-AN 105 T	3D Visualization-I	02
6.	F. Y. B. Sc.	I	BSC-AN 106 T	Information Technology-I	02
7.	F. Y. B. Sc.	I	BSC-AN 107 T	Creative Writing	02
8.	F. Y. B. Sc.	I	BSC-AN 108 T	Art in Game	02
9.	F. Y. B. Sc.	I	BSC-AN 109 P	Foundation of Art	1.5
10.	F. Y. B. Sc.	I	BSC-AN 110 P	Programming Language-I	1.5
11.	F. Y. B. Sc.	I	BSC-AN 111 P	3D Visualization-I	1.5
12.	F. Y. B. Sc.	I	BSC-AN 112 P	Digital Graphics I	1.5
13.	F. Y. B. Sc.	II	BSC-AN 201 T	Basics of Animation-II	02
14.	F. Y. B. Sc.	II	BSC-AN 202 T	Digital Filmmaking	02
15.	F. Y. B. Sc.	II	BSC-AN 203 T	Digital Graphics-II	02
16.	F. Y. B. Sc.	II	BSC-AN 204 T	Programming Languages-II	02
17.	F. Y. B. Sc.	II	BSC-AN 205 T	3D Visualization-II	02
18.	F. Y. B. Sc.	II	BSC-AN 206 T	Stop Motion Animation	02
19.	F. Y. B. Sc.	II	BSC-AN 207 T	2D Animation	02
20.	F. Y. B. Sc.	II	BSC-AN 208 T	Typography	02
21.	F. Y. B. Sc.	II	BSC-AN 209 P	Stop motion and C#	1.5
22.	F. Y. B. Sc.	II	BSC-AN 210 P	2D Animation	1.5
23.	F. Y. B. Sc.	II	BSC-AN 211 P	3D Visualization-II	1.5
24.	F. Y. B. Sc.	II	BSC-AN 212 P	Digital Graphics-II	1.5
25.	S. Y. B. Sc.	III	BSC-AN 301 T	3D Production-I	02

26.	S. Y. B. Sc.	III	BSC-AN 302 T	Animation Technique	02
27.	S. Y. B. Sc.	III	BSC-AN 303 T	Graphics Arts	02
28.	S. Y. B. Sc.	III	BSC-AN 304 T	Digital Technologies	02
29.	S. Y. B. Sc.	III	BSC-AN 305 T	Production Process	02
30.	S. Y. B. Sc.	III	BSC-AN 306 T	Audio Production	02
31.	S. Y. B. Sc.	III	BSC-AN 307 P	Animation Technique & Audio Production	02
32.	S. Y. B. Sc.	III	BSC-AN 308 P	3D Production-I	02
33.	S. Y. B. Sc.	III	BSC-AN 309 P	Graphics Arts	02
34.	S. Y. B. Sc.	III	BSC-AN 310 T	Critical Thinking and Scientific Temper	02
35.	S. Y. B. Sc.	III	BSC-AN 311 T	English / Hindi Communication	02
36.	S. Y. B. Sc.	III	BSC-AN 312 T	Advance Anatomy	02
37.	S. Y. B. Sc.	III	BSC-AN 313 P	Advance Anatomy (Practical)	02
38.	S. Y. B. Sc.	IV	BSC-AN 401 T	3D Production-II	02
39.	S. Y. B. Sc.	IV	BSC-AN 402 T	Motion Graphics	02
40.	S. Y. B. Sc.	IV	BSC-AN 403 T	Web Development	02
41.	S. Y. B. Sc.	IV	BSC-AN 404 T	Augmented and Virtual Reality	02
42.	S. Y. B. Sc.	IV	BSC-AN 405 T	Animation Film and Process	02
43.	S. Y. B. Sc.	IV	BSC-AN 406 T	Digital Photography	02
44.	S. Y. B. Sc.	IV	BSC-AN 407 P	Motion Graphics & Digital Photography	02
45.	S. Y. B. Sc.	IV	BSC-AN 408 P	3D Production-II	02
46.	S. Y. B. Sc.	IV	BSC-AN 409 P	Web Development	02
47.	S. Y. B. Sc.	IV	BSC-AN 410 T	Environmental Awareness	02
48.	S. Y. B. Sc.	IV	BSC-AN 411 T	English/Hindi Communication	02
49.	S. Y. B. Sc.	IV	BSC-AN 412 T	2D Digital Character Animation	02
50.	S. Y. B. Sc.	IV	BSC-AN 413 P	2D Digital Character Animation (Practical)	02
51.	T. Y. B. Sc.	V	BSC-AN 501 T	User Interface	02
52.	T. Y. B. Sc.	V	BSC-AN 502 T	Game Design	02
53.	T. Y. B. Sc.	V	BSC-AN 503 T	Visual Effects-I	02

54.	T. Y. B. Sc.	V	BSC-AN 504 T	Advanced Programming	02
55.	T. Y. B. Sc.	V	BSC-AN 505 T	Digital Marketing	02
56.	T. Y. B. Sc.	V	BSC-AN 506 T	Digital Editing-I	02
57.	T. Y. B. Sc.	V	BSC-AN 507 P	User Interface and Advanced Programming	02
58.	T. Y. B. Sc.	V	BSC-AN 508 P	Game Design	02
59.	T. Y. B. Sc.	V	BSC-AN 509 P	Visual Effects-I & Digital Editing-I	02
60.	T. Y. B. Sc.	V	BSC-AN 510 T	3D Character Animation	02
61.	T. Y. B. Sc.	V	BSC-AN 511 P	3D Character Animation (Practical)	02
62.	T. Y. B. Sc.	VI	BSC-AN 601 T	IPR & Cyber Security	02
63.	T. Y. B. Sc.	VI	BSC-AN 602 T	Game Production	02
64.	T. Y. B. Sc.	VI	BSC-AN 603 T	Visual Effects-II	02
65.	T. Y. B. Sc.	VI	BSC-AN 604 T	Concept Development	02
66.	T. Y. B. Sc.	VI	BSC-AN 605 T	Media Communication	02
67.	T. Y. B. Sc.	VI	BSC-AN 606 T	Digital Editing-II	02
68.	T. Y. B. Sc.	VI	BSC-AN 607 P	Game Production	02
69.	T. Y. B. Sc.	VI	BSC-AN 608 P	Visual Effects-II and Digital Editing-II	02
70.	T. Y. B. Sc.	VI	BSC-AN 609 P	Internship	02
71.	T. Y. B. Sc.	VI	BSC-AN 610 T	Digital Painting & Illustration	02
72.	T. Y. B. Sc.	VI	BSC-AN 611 P	Digital Painting & Illustration (Practical)	02

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Semester – V	Paper – I
Course Code: BSC-AN 501 T	Title of the Course: User Interface
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. This course introduces students to all the features of Adobe XD
2. Introduction, User interface Design and principles UI prototyping and styling.
3. UX Research and Testing

Detailed Syllabus:

Unit: 1 An Introduction to Adobe XD

1. Introducing Adobe XD   (03)
2. A typical UX design workflow
3. Starting Adobe XD and opening a file
4. Working in Design mode
5. Getting to know the tools
6. Working with the Property Inspector
7. Working with panels
8. Prototype mode
9. Changing the view of artwork
10. Using view commands

Unit: 2 ADOBE XD Tools   (03)

1. Zoom tool
2. Scrolling through a document
3. Navigating artboards
4. Previewing your designs
5. Sharing your designs
6. Finding resources for using Adobe XD

Unit: 3 Setting Up A Project   (02)

1. Creating and saving a new document
2. Working with cloud documents

3. Creating and editing artboards
4. Creating artboards with the Artboard tool
5. Editing artboards
6. Changing artboard appearance
7. Working with multiple artboards
8. Aligning artboards
9. Adding grids and guides to artboards
10. Working with square grids
11. Applying a layout grid
12. Creating artboard guides
13. Managing artboards with the Layers panel

Unit: 4 Adding Images Graphics, And Text   (02)

1. Assets and Adobe XD
2. Importing an image
3. Importing multiple assets
4. Importing assets via drag and drop
5. Replacing an image
6. Transforming images
7. Resizing an image in its frame

Unit: 5 Contents   (03)

1. Bringing in content from Photoshop
2. Copying and pasting from Photoshop to XD
3. Opening a Photoshop file in Adobe XD
4. Editing an image in Photoshop
5. Bringing in content from Adobe Illustrator
6. Exporting artwork from Illustrator for Adobe XD
7. Masking content
8. Masking with a shape or path
9. Editing a mask
10. Masking with an image fill
11. Editing an image fill mask
12. Working with text
13. Adding text at a point
14. Creating a text area
15. Importing text
16. Styling text
17. Duplicating text

Unit: 6 Creating And Editing Graphics   (03)

1. Graphics and Adobe XD
2. Creating and editing shapes
3. Creating rectangles

4. Creating ellipses
5. Creating polygons
6. Changing fill and border
7. Working with border options
8. Rounding corners
9. Editing shapes
10. Combining shapes
11. Editing combined shapes
12. Aligning content to the pixel grid
13. Drawing with the Pen tool
14. Drawing straight lines
15. Drawing curves
16. Changing path direction
17. Editing artwork with the Pen tool
18. Copying the cloud icon
19. Working with UI Kits
20. Downloading the UI kit
21. Opening and copying from the UI Kit

Unit: 7 Organizing Content   (03)

1. Arranging objects
2. Working with the Layers panel
3. Reordering artboards and layer content
4. Selecting content using the Layers panel
5. Locking and hiding content
6. Searching and filtering in the Layers panel
7. Working with groups
8. Creating a group
9. Editing content within a group
10. Aligning content
11. Aligning objects to the artboard
12. Setting up objects for alignment
13. Aligning objects to each other
14. Distributing the icons
15. Positioning objects
16. Aligning with temporary guides
17. Positioning icons for the Memory artboard
18. Setting gap distances
19. Viewing distances with temporary guides

Unit: 8 Using Effects, Repeat Grids, and Responsive Layout   (03)

1. Applying and editing gradients
2. Applying gradients
3. Editing gradient colors

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4. Adjusting the direction and length of a gradient
5. Understanding effects
6. Working with background blur
7. Working with object blur
8. Applying a drop shadow
9. Applying blend modes
10. Using repeat grids
11. Adding content for a repeat grid
12. Creating a repeat grid
13. Editing content in a repeat grid
14. Editing content appearance in a repeat grid
15. Adding content to a repeat grid
16. Finishing the repeat grid
17. Responsive content and layouts
18. Responsive padding with content-aware layout
19. Padding examples
20. Getting started with responsive resize
21. Grouping content
22. Setting manual constraints
23. Finishing the design

Unit: 9 Creating A Prototype   (04)

1. Starting with prototypes
2. Design mode vs Prototype mode
3. Setting the home screen
4. Linking artboards
5. Previewing links locally
6. Editing links
7. Adding a connection to a component master
8. Taking prototypes further
9. Adding a hover state to components
10. Adding multiple states to components
11. Auto-animate content
12. Adding a drag trigger
13. Applying multiple interactions to a single object
14. Setting up content for preserving scroll position
15. Preserving scroll position
16. Working with fixed positioning
17. Setting up content for overlays
18. Creating overlays
19. Setting a timed trigger
20. Setting timed transition content
21. Adding a voice trigger
22. Adding speech playback

Unit: 10 Previewing A Prototype   (02)

1. Recording a prototype
2. Recording on Windows
3. Previewing on a mobile device
4. Setting up the XD mobile app
5. Setting up preview via USB
6. Navigating the XD mobile app
7. Previewing cloud documents
8. Document history

Unit: 11 Sharing Your Designs   (02)

1. Methods of sharing
2. Sharing a cloud document
3. Coediting
4. Sharing a prototype or design for review
5. Updating a shared prototype
6. Commenting on a shared prototype
7. Pinning comments
8. Working with comments
9. Sharing designs or prototypes with developers
10. Inspecting design specs

Unit: 12 Exporting and Integration

- Exporting assets
- Exporting as PDF
- Exporting as SVG
- Exporting as PNG
- Exporting as JPG
- Using plugins
- Installing a plugin
- Using a plugin
- Market Research
- Wireframes
- App Testing

Suggested Readings:

1. Adobe XD classroom in book 2020 release.

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Semester – V	Paper – II
Course Code: BSC-AN 502 T	Title of the Course: Game Design
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. Design characters, background grounds, color scheme, Game storyboards and basic audio requisites for Gaming industry.
2. Develop and test solutions for interactive platforms with well-defined processes that meet specified needs for development.
3. Classify various digital distribution pads in the gaming sector and generate content and adapt to emerging technologies and challenges

Detailed Syllabus:

Unit 1: History of Game Design   (05)

1. What is Game Design
2. Game Design Production workflow/ Process
- Pre-production
- production
- Post-production
   3. Principles of Game Design

Unit 2: Introduction to Blender   (04)

1. Use of Blender in Game Design
2. Interface: Tools, Workspace, Tabs & panels, Menus, Timeline, etc.
3. Modeling, Texturing, Lighting, Animation, Rendering
4. Game Development & Logic Development with Blender

Unit 3: Skills required for Game Designer   (04)

1. Creativity & Imagination skills
2. Drawing & Designing skills
3. Graphic skills
4. Basic Knowledge of storytelling

5. Programming skills
6. Communication skills

Unit 4: Genres & platforms for Games   (05)

1. Types of video game generation

2. Game Genres: (Adventure, Action, Fighting, First person shooter, Third person shooter games, Sports, Race, Cards, etc.)

3. Platforms: Mobile, PC, Console games, Video games, etc.

Unit 5: Types of Game Designers   (07)

- (Game writer, lead designer, Content designer, Technical designer, UI designer, Software developer, Game Animator, Game Audio Engineer, Game Designer, Game Programmer, Game Tester, Game marketer, Game Director, Game System Designer, etc.)

Unit 6: Responsibilities of a Game Designer   (05)

1. Construct level structure
2. Storyboard the action of the Game
3. Designing characters Bios, Characters, Plot, props, Dialogue, etc.
4. Developing a game script
5. Generate the GDD(Game Design Document)
6. Creating different types of sounds & animation for the game

Suggested Readings:

1. Blender Reference Manual. Volume 3_ Painting and Sculpting, Rigging, Animation, and Physics.

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Semester – V	Paper – III
Course Code: BSC-AN 503 T	**Title of the Course: Visual Effects- I**
Credits: 02	**Total Lectures: 30 Hrs.**

Course Outcomes (COs):
1. Nuke is node based digital compositing and visual effects application.
2. Nuke is probably most robust and versatile.

Detailed Syllabus:

Unit: 1 The Nuke Interface   (03)
1. Navigating the interface
2. Building Node Graphs
3. Creating key frames
4. The Curve Editor

Unit: 2 Transformations and Animation   (03)

1. Keyframe animation
2. Math expressions and linking
3. Creating animated elements
4. Correcting for lens distortion

Unit: 3 Color and Rotoscoping   (03)

1. Nuke's color management
2. Color correcting composites
3. Rotoscoping
4. Masking operations

Unit: 4 Compositing CGI and Channels   (03)

1. Mastering Nuke's channels system
2. Multi-pass CG compositing
3. Adding motion blur
4. Adding depth of field

Unit: 5 Keying   (02)

1. Lumakeys
2. All four of Nuke's chromakeyers
3. Proper use of Addmix and Keymix nodes
4. How to merge multiple keys

Unit: 6 Tracking, Wraping and Retiming   (03)

1. The Tracker node
2. How to do a match move
3. Spline wrap and Grid wrap
4. Retiming clips with optical flow

Unit: 7 3D Basics   (04)

1. Navigating Nuke's 3D workspace
2. Working with geometric primitives
3. Projecting texture maps
4. Rendering 3D scenes

Unit: 8 3D Animation and Shaders   (03)

1. Animating 3D geometry
2. Deforming 3D geometry
3. Adding lights, shaders and materials to geometry
4. Normals relighting

Unit: 9 Production Workflows   (02)

1. Adding a 3D background to a CG render
2. Camera projection
3. Rig removal
4. Set extension

Unit: 10 Camera Tracking   (02)

1. How to do camera tracking
2. Converting point clouds to meshes
3. Compensating for lens distortion
4. Getting 3D information to the 2D composite

Unit: 11 Planar Tracker and Particles   (02)

1. How to do planar tracking
2. How to use planar tracking results
3. Using Nuke's 3D particle system
4. Creating your own particles

Unit: 12 Advanced 3D Nodes   (02)

1. Deep compositing
2. Alembic geometry
3. Modeling 3D geometry from a 2D scene
4. Creating point clouds from CG renders

Suggested Readings:

1. The VES handbook of visual effects: industry standard VFX practices and procedures Jeffrey.
2. Artistic principles of VFX.
3. SFX and VFX.

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Semester – V	Paper – IV
Course Code: BSC-AN 504 T	Title of the Course: Advanced Programming
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

To acquire programming skills in core Python.

1.   To acquire Object Oriented Skills in Python

2.   To develop the skill of designing Graphical user Interfaces in Python

3.   To develop the ability to write database applications in Python

Detailed Syllabus:

Unit I: Python Introduction   (02)

1. Python Intro
2. Python Get Started
3. Python Syntax
4. Python Comments
5. Python Variables
6. Python Data Types
7. Python Numbers
8. Python Casting
9. Python Strings
10. Python Booleans
11. Python Operators
12. Python Lists
13. Python Tuples
14. Python Sets
15. Python Dictionaries

16. Python If...Else

17. Python While Loops

18. Python For Loops

19. Python Functions

20. Python Lambda

21. Python Arrays

22. Python Classes/Objects

23. Python Inheritance

24. Python Iterators

25. Python Scope

26. Python Modules

27. Python Dates

28. Python Math

29. Python JSON

30. Python RegEx

31. Python PIP

32. Python Try...Except

33. Python User Input

34. Python String Formatting

Unit II: File Handling   (02)

1. Python File Handling
2. Python Read Files
3. Python Write/Create Files
4. Python Delete Files

Unit III: Python Modules   (03)

1. NumPy Tutorial

2. Pandas Tutorial

3. SciPy Tutorial

4. Django Tutorial

Unit IV: Python Matplotlib   (03)

1. Matplotlib Intro
2. Matplotlib Get Started
3. Matplotlib Pyplot
4. Matplotlib Plotting
5. Matplotlib Markers
6. Matplotlib Line
7. Matplotlib Labels
8. Matplotlib Grid
9. Matplotlib Subplot
10. Matplotlib Scatter
11. Matplotlib Bars
12. Matplotlib Histograms
13. Matplotlib Pie Charts

Unit V: Machine Learning   (03)

1. Getting Started
2. Mean Median Mode
3. Standard Deviation
4. Percentile
5. Data Distribution
6. Normal Data Distribution
7. Scatter Plot
8. Linear Regression
9. Polynomial Regression
10. Multiple Regression
11. Scale
12. Train/Test
13. Decision Tree
14. Confusion Matrix
15. Hierarchical Clustering
16. Logistic Regression
17. Grid Search
18. Categorical Data
19. K-means
20. Bootstrap Aggregation
21. Cross Validation
22. AUC - ROC Curve
23. K-nearest neighbors

Unit VI: Python MySQL   (03)

1. MySQL Get Started
2. MySQL Create Database

3. MySQL Create Table
4. MySQL Insert
5. MySQL Select
6. MySQL Where
7. MySQL Order By
8. MySQL Delete
9. MySQL Drop Table
10. MySQL Update
11. MySQL Limit
12. MySQL Join

Suggested Readings:

1. Reference Books:-
   1. Learning Python- Book by David Ascher and Mark Lutz
   2. Natural Language Processing with Python - Book by Edward Loper, Ewan Klein and Steven Bird
   3. Python:The Complete Reference- Book by Martin Brown and Martin C.Brown

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Semester – V	Paper – V
Course Code: BSC-AN-505 T	**Title of the Course: Digital Marketing**
Credits: 02	**Total Lectures: 30 Hrs.**

Course Outcomes (COs):

1. Develop a digital marketing plan that will address common marketing challenges.
2. Articulate the value of integrated marketing campaigns across SEO, Paid Search, Social, Mobile, Email, Display Media, Marketing Analytics.
3. Recognize Key Performance Indicators tied to any digital marketing program
4. Improve Return on Investment for any digital marketing program
5. Launch a new, or evolve an existing, career path in Digital Marketing.

Detailed Syllabus:

Unit: 1 Basics of Digital Marketing   (03)

1. Introduction To Online Digital Marketing
2. Importance Of Digital Marketing
3. How did Internet Marketing work?
4. Traditional Vs. Digital Marketing
5. Types of Digital Marketing
6. Increasing Visibility
7. Visitors' Engagement
8. Bringing Targeted Traffic
9. Lead Generation

Unit: 2 Analysis and Keyword Research   (03)

1. Market Research
2. Keyword Research And Analysis
3. Types Of Keywords
4. Tools Used For Keyword Research
5. Localized Keyword Research
6. Competitor Website Keyword Analysis
7. Choosing Right Keywords To The Project

Unit: 3 Search Engine Optimization (SEO) (03)

1. Introduction To Search Engine Optimization
2. How Did Search Engine work?
3. SEO Fundamentals & Concepts
4. Understanding The SERP
5. Google Processing
6. Indexing
7. Crawling

Unit: 4 On Page Optimization (05)

1. Domain Selection
2. Hosting Selection
3. Metadata Optimization
4. URL Optimization
5. Internal Linking
6. 301 Redirection
7. 404 Error Pages
8. Canonical Implementation
9. Image Optimization
10. Landing Page Optimization
11. No-Follow And Do-Follow
12. Creating XML Sitemap

Unit: 5 Off Page Optimization (02)
1. Link Building Tips & Techniques
2. Difference Between White Hat And Black Hat SEO
3. Alexa Rank, Domain
4. Directory Submission
5. Social Bookmarking Submission
6. Search Engine Submission
7. Web 2.0 Submission
8. Article Submission
9. Image Submission

Unit: 6 SEO Updates and Analysis (03)

1. Google Panda, Penguin, Humming Bird Algorithm
2. Google Penalties

3. SEO Tools For Website Analysis And Optimization
4. Competitor Website Analysis And Backlinks Building
5. Backlinks Tracking, Monitoring, And Reporting

Unit: 7 Local Business & Google Mapping   (02)
1. Creating Local Listing In Search Engine
2. Google Places Setup (Including Images, Videos, Map Etc)
3. Search Engine Visibility Reports
4. Verification Of Listing
5. Google Reviews

Unit: 8 Google Adwords or Pay per Click Marketing (SEM)   (04)
1. Google Adwords
2. Introduction To Online Advertising And Adwords
3. Adwords Account And Campaign Basics
4. Adwords Targeting And Placement
5. Adwords Bidding And Budgeting
6. Adwords Tools
7. Opportunities
8. Optimizing Performance
9. Ads Type
10. Bidding Strategies
11. Search Network
12. Display Network
13. Shopping Ads
14. Video Ads
15. Universal App Ads
16. Tracking Script
17. Remarketing
18. Performance Monitoring
19. Reports
20. SOCIAL MEDIA OPTIMIZATION (SMO)
21. Social Media Optimization
22. Introduction To Social Media Networks
23. Facebook, Google+, LinkedIn, □ YouTube, Pinterest, □ Hashtags
24. Image Optimization
25. SOCIAL MEDIA MARKETING (SMM)
26. Facebook Optimization

Unit 9: Google Web Analytics   (02)
 1. Getting Started With Google Analytics

2. Navigating Google Analytics
3. Real-Time Monitoring
4. Audience
5. Acquisition
6. Traffic Sources
7. Behavior
8. Content
9. Visitors
10. Live Data
11. Demographics

Unit 10: Webmaster Tools   (03)
1. Adding site and verification
2. Setting Geo-target location
3. Search queries analysis
4. Filtering search queries
5. External Links report
6. Crawls stats and Errors
7. Sitemaps
8. Robots.txt and Links Removal
9. HTML Suggestion

Suggested Readings:

1. Digital Marketing_ Strategy, Implementation and practice
2. Understanding Digital Marketing_ Marketing Strategies for Engaging the Digital Generation

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Semester – V	Paper – VI
Course Code: BSC-AN 506 T	Title of the Course: Digital Editing-I
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. Describe what Adobe Premiere Pro is and how it can help you with your video making needs.
2. working and editing in the Timeline.
3. Learn advanced editing techniques in the Timeline.
4. Demonstrate working with motion in Premiere.
5. Demonstrate adding and managing video effects and transitions in Premiere.
6. Working with color correction.
7. Working with multi-cameras and audio tracks in Adobe Premiere.
8. Using titles and closed captioning in Premiere

Detailed Syllabus:

Unit 1: Starting the lesson   (03)

1. Performing nonlinear editing in Premiere Pro
2. Expanding the workflow
3. Touring the Premiere Pro interface
4. Creating a project
5. Setting up a sequence

Unit 2: Importing Media   (03)

1. Importing assets.
2. Working with ingest options and proxy media.
3. Working with the Media Browser panel.

4. Importing still image files.

5. Using Adobe Stock.

6. Customizing the media cache.

7. Recording a voice-over.

Unit 3: Organizing Media   (03)

1. Using the Project panel.

2. Working with bins.

3. Monitoring footage.

4. Modifying clips.

Unit 4: Mastering the Essentials of Video Editing   (05)

1. Using the Source Monitor.

2. Navigating the Timeline.

3. Using essential editing commands.

Unit 5: Working with clip and Markers   (02)

1. Using Program Monitor controls

2. Setting the playback resolution

3. Playing back VR video

4. Using markers

5. Using Sync Lock and Track Lock

6. Finding gaps in the Timeline

7. Selecting clips

8. Moving clips

9. Extracting and deleting segments.

Unit 6: Adding Transitions   (03)

1. What are transitions?

2. Using edit points and handles

3. Adding video transitions

4. Using A/B mode to fine-tune a transition

5. Adding audio transitions

Unit 7: Advanced Editing Techniques   (04)

1. Performing four-point editing

2. Changing playback speed

3. Replacing clips and footage

4. Nesting sequences

5. Performing regular trimming

6. Performing advanced trimming

7. Trimming in the Program Monitor

Unit 8: Putting Clips in Motion   (4)

1. Adjusting the Motion effect

2. Changing clip position, size, and rotation

3. Working with keyframe interpolation

4. Using other motion-related effects

Unit 9: Multi Camera Editing   (03)

1. Following the multicamera process

2. Creating a multicamera sequence

3. Switching multiple cameras

4. Finalizing multicamera editing

Suggested Readings:

1. Adobe Premiere Pro CC Classroom in a Book 2018

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Semester – V	Paper – VII
Course Code: BSC-AN 507 P	Title of the Course: User Interface and Advanced programming
Credits: 02	Total Lectures: 45 Hrs.

Course Outcomes (COs):

1. This course introduces students to all the features of Adobe XD
2. Introduction, User interface Design and principles UI prototyping and styling.
3. UX Research and Testing
4. To acquire Object Oriented Skills in Python
5. To develop the skill of designing Graphical user Interfaces in Python
6. To develop the ability to write database applications in Python

Practical List:

User Interface

1. Creating New Files & Designing on a Grid

2. Importing text & creating colored backgrounds for text

3. Adjusting the Layout for Tablets & Mobile Phones

4. Adapting the design for tablets & mobile phones

5. Importing & Cropping Photos

6. Importing Vector Graphics, Color Swatches, Shadows, & rounding corners

7. Importing & modifying vector graphics

8. Aligning & distributing layers

9. Adding a drop shadow &Character Styles

10. Exporting

Advanced programming:

1.   Basic Python

2.   Python Strings

3.   Python Tuple

4.   Python Set

5.   Python Dictionary

6.   Functions in Python

7.   Files

8.   Directories

9.   Python Classes and objects

10.   Exception Handling

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Semester – V	Paper – VIII
Course Code: BSC-AN 508 P	Title of the Course: Game Design
Credits: 02	Total Lectures: 45 Hrs.

Course Outcomes (COs):

1. Learn how to design characters, background grounds, color scheme, Game storyboards and basic audio requisites for Gaming industry.
2. Develop and test solutions for interactive platforms with well-defined processes that meet specified needs for development.

Practical List:

1. Props Modeling
2. Designing Interior & Exterior Layout
3. 3D Layout (Game Environment)
4. Creating Game UI
5. Character Modeling
6. Character Rigging (Character & Mechanical)
7. Character Animation
8. Character Face Rigging
9. Creating Facial Expression
10. Creating Actuators

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Semester – V	Paper – IX
Course Code: BSC-AN 509 P	Title of the Course: Visual Effects-I and Digital Editing-I
Credits: 02	Total Lectures: 45 Hrs.

Course Outcomes (COs):

1. Understanding the 3D Environment using Camera Projection
2. Learn what is tracking and Roto paint?
3. How to Edit?
4. What is Wrap stabilizer?

Practical List:

Visual Effects-I

1. Basic compositing in Nuke
2. 3D Environment with camera projection
3. Sky replacements and track mattes
4. Introduction to tracking and Roto paint
5. Day to night conversion in Nuke

Digital Editing-I

6. Intro to Premiere Pro
7. The Source Monitor & Adding B-Roll
8. Fixing Audio/Color & Making Edits
9. Adding Clips to the Timeline
10. Wrap Stabilizer & Reversing Footage

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Semester – V	Paper – X
Course Code: BSC-AN 510 T	Title of the Course: 3D Character Animation
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. This advanced 3D character animation explores the process of bringing 3D characters to life; from concept, through production, to finished performance.

Detailed Syllabus:

Unit: 1 Introduction and review of animation principles.   (03)

1. Overview of objectives and Review of basic animation principles.
2. Planning a Story and create storyboard and script.
3. Motions, Weight, mass, and linear motion.
4. Animation principles staging and animation layout in a 3D scene.
5. Posing to the camera.

Unit:2 Intermediate animation and timing techniques.   (02)

1. Review of animation curve editing tools and techniques.
2. Anchoring limbs. Adjusting pivot points and Axes.
3. The illusion of friction.

Unit:3 Facial Animation Techniques.   (03)

1. Preparing and importing audio for facial animation timing.
2. Animating faces.
3. Emotions and dialogues.
4. Facial GUI vs. facial joint array vs. blend shape driven expressions.

Unit:4 Fundamental Character Modeling Techniques   (03)
1. 3D Modeling fundamentals.
2. Building a smart and efficient character base mesh.
3. Overview of pipelines and software tools for character modeling.
4. (Maya, Mudbox, ZBrush, Poly, Subdiv. NURBS, etc.)
5. Planning the modeling process.

Unit: 5 Facial Modeling Techniques   (03)
1. Defining facial features and anatomical primitives.
2. Modelling eyes, Modelling teeth and mouth.
3. Modeling eyelids and anatomical face structure. (NURBS vs. polygon)
4. Facial modelling and edge looping techniques. In addition, facial expressions.

Unit: 6 Character Model Clean-up and Rigging Preparation   (02)

1. Final clean-up considerations.
2. Clothing, armour, and prop building.
3. Preparing to make the character move.
4. Centering the character, freezing transforms.
5. Deleting history, Node orientation.

Unit: 7 Character Skeleton Construction   (03)

1. Overview of the range of available character rigging tools and techniques.
2. Understanding character movements and kinematics. (IK, FK)
3. Building skeletons to drive 3D character movement.
4. Review of hierarchies, history, and deformation order Goal vs. arc based motion.
5. Plan and organize an efficient, durable, and sound character node network.

Unit: 8 Character Skinning Techniques   (02)

1. Proper posing for character deformation.
2. Relaxed Pose vs. T-Pose.
3. 3D Character skinning techniques.

Unit: 9 Facial Rigging Techniques   (03)

1. Techniques for facial deformation.
2. Blend shape based facial movement.
3. Modeling facial deformation targets.
4. Joint based facial movement.
5. Hybrid facial rigs, advanced topics on deformation order.

Unit: 10 Character Rig Final Phase Testing Methods   (05)

1. Testing of the completed character rig.
2. Customizing interface and camera controls to optimize the animation process.

3. Camera and scene setup.
4. Adjust keys on timeline.
5. Finalize the animation.

Suggested Readings:
1. Character Modeling with Maya and mudbox.
2. Finish your Film (3D Animation)
3. Rig it Right!

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Semester – V	Paper – XI
Course Code: BSC-AN 511 P	Title of the Course: 3D Character Animation
Credits: 02	Total Lectures: 45 Hrs.

Course Outcomes (COs):

1. This advanced 3D character animation explores the process of bringing 3D characters to life; from concept, through production, to finished performance.

Practical List:

1. Create advanced rigging setup for animation.
2. Setup the different rigged characters file in maya.
3. Create characters biped walk cycle.
4. Create facial expressions and lips.
5. Animate character jumps up and jump down.
6. Create lip synchronization of letter "A, E, I, O, U" of female character.
7. Create walk cycle of steps up and down of boy.
8. Animate an inspired run animation of anime character.
9. Animate the hulk walk cycle in Maya.
10. Create an animation of Football player with using animation principle.

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Semester – VI	Paper – I
Course Code: BSC-AN 601 T	**Title of the Course: IPR and Cyber Security**
Credits: 02	**Total Lectures: 30 Hrs.**

Course Outcomes (COs):

1. Animation is a creative field, and every day new ideas innovations, practices can come up. The students while entering the industry must be fully aware about how to protect their work and also what would be the consequences if things are done in a wrong way, which Intellectual Property Rights provides them with. It gives them an idea about what they should do and what not to do.

2. The second part of this subject, Cyber Security tries to provide the students fundamental knowledge about information security to take on a career in this challenging and ever changing IT world, where data or information which we create/process/store/transmit is at a risk always. Both the topics help to create awareness and teach the students about what to protect and how to protect information/systems and our rights.

Detailed Syllabus:

Unit 1: Introduction to Intellectual Property Rights   (03)
   1. Introduction to IPR
   2. Need of Intellectual Property Protection
   3. Introduction to Patents & Copyright
   4. History of IPR
   5. Trade and Investment

Unit 2: Introduction to Copyright, Software and Internet   (03)
   1. Introduction
   2. Copyright as a Stimulus To Creation
   3. Copyright And Access
   4. Copyright and Computer Software

Unit 3: The Patent System

(02)

1. Introduction
2. Scope of Patentability
3. Patentability Standards
4. Exceptions to Patent Rights
5. Patenting in India
6. Process of Patenting in India

Unit 4: Basic Security Concepts   (10)

1. Overview of Networking Concepts:
- Basics of Communication Systems
- Transmission Media
- ISO/OSI and TCP/IP Protocol Stacks
- Local Area Networks
- Wide Area Networks
- Internetworking
- Packet Formats
- Wireless Networks
- Internet
- Basics of Information Security:
- Information Security Overview
- Information Security Services

2. Types of Attacks
- Goals for Security
- E-commerce Security
- Computer Forensics
- Security Engineering

3. Steganography:
   - Introduction to Steganography
   - Steganography types, Image Steganography.

4. Watermarking:
- Introduction to watermarking
- Watermarking types
- Digital watermarking

5. Applications.

- Security Threats and vulnerabilities
- Overview of Security threats
- Hacking Techniques
- Password Cracking
- Insecure Network connections

- Malicious Code
- Programming Bugs
- Cybercrime and Cyber terrorism
- Information Warfare and Surveillance
- Basics of Cryptography
- Introduction to Cryptography
- Symmetric key Cryptography
- Asymmetric key Cryptography
- Mechanisms of cryptography
- Message Authentication and Hash functions
- Digital Signatures
- Public Key infrastructure
- Applications of Cryptography

Unit 5: Security Management   (10)

- Security Management Practices
- Overview of Security Management
- Information Classification Process
- Security Policy
- Risk Management
- Security Procedures and Guidelines
- Business Continuity Planning (BCP), Disaster Recovery Planning.
- Security Laws and Standards
- Security Assurance
- Security Laws
- International Standards
- Security Audit
- OCTAVE approach
- Introduction to SSE-CMM
- IT Act 2000 – Key Provisions
- Access Control and Intrusion Detection
- Overview of Identification and Authorization
- Intrusion Detection Systems and Intrusion Prevention Systems
- Server Management and Firewalls
- Types of Firewalls
- DMZ and firewall features
- Security for VPN
- VPN Security
- Security in Multimedia Networks
- System and Application Security
- Desktop Security
- OS security
- mobile security
- email security

- Web Security: web authentication
- SSL and SET

Unit 6: Cases of Security Systems   (02)
1. Cases of Security Systems in e-Banking
2. Cases of Security Systems in e-Commerce
3. Cases of Security Systems in e-business
4. Cases of Security Systems in ICT devices in Business

Suggested Readings:
Book-1 Laws Relating to Intellectual Property by Dr. B.L Wadehra, Fourth Edition, Universal Law Publishing Co.
Book-2 Cyber Security : Understanding Cyber Crimes , Computer Forensics and Legal Perspectives by Sunit Belpure and Nina Godbole,Wiley India Pvt. Ltd
Book-3 Information Systems Security: Security Management , Metrics , Framework and Best Practices by Nina Godbole,Wiley India Pvt. Ltd

Additional References-
Introduction to Computer Security, Matt Bishop , Pearson Education
Information Security : Principals and Practices, Pearson Education
Intellectual Property Rights by M.M.Karki, Atlantic Publication (2009)
Intellectual Property Rights in India: General Issues and Implications by Prankrishna Pal, Regal Publications
Intellectual Property Issues and Cyberspace, The Indian Perspective, by Rohas Nagpal, Published 2009, Asian School of cyber laws

Important Links-
https://en.wikipedia.org/wiki/Watermark
https://www.cl.cam.ac.uk/teaching/0910/R08/work/essay-ma485-watermarking.pdf
http://www.ijaiem.org/volume3issue2/IJAIEM-2014-02-27-062.pdf
https://en.wikipedia.org/wiki/Steganography

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Semester – VI	Paper – II
Course Code: BSC-AN 602 T	Title of the Course: Game Production
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. Unity allows you to import and assemble assets.
2. Write code to interact with your objects.
3. Create or import animations for use with an advanced animation system, and much more.

Detailed Syllabus:

Unit: 1 Introduction to UNITY   (2)

1. Introduction to gaming and game development process
2. Unity Basics
3. Interface
4. Inspector
5. Project and Hierarchy

Unit: 2 Project management and Importing assets   (4)

1. Working with projects
2. Creating projects
3. Importing Geometry
4. Importing Textures

Unit: 3 Materials   (4)

1. Working with materials
2. Creating materials
3. Adding materials to game objects

Unit: 4 Level creation   (7)

1. Creating a level using the imported game assets
2. Adding and managing collisions
3. Character controller

Unit: 5 Lighting   (2)

1. Creating lights
2. Lighting Scene
3. Baking Lights

Unit: 6 Animation   (4)

1. Animating objects
2. Animating Lights

Unit: 7 Audio   (02)

1. Adding sound
2. Interacting Sound

Unit: 8 Particle System   (02)

1. Shuriken Particle System
2. Creating basic effects

Unit: 9 Programming and Game building   (03)

1. Basics of programming using c# scripts
2. Mono develop editor
3. Variables and functions
4. Basic scripts such as score system, game over, opening a door etc.
5. Building our game for Windows

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Semester – VI	Paper – III
Course Code: BSC-AN 603 T	Title of the Course: Visual Effects-II
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. The industry's most powerful tracking drives Silhouette animation system and can be applied to speed up paint, roto, wrap, and stabilization task.

2. Silhouette includes under the hood enhancement that improves general workflow for professional postproduction and VFX studios.

Detailed Syllabus:

Unit:1 Introduction to Silhouette

(5)

Boris FX Silhouette
Overview of Silhouette
How to use the exercise files
Reloading missing footage

Unit: 2 Workflow of Silhouette   (5)
The Silhouette interface
Setting up a project
Working with nodes
Working with objects, layers, and mattes
Optimizing, playing back, and rendering

Unit:3   Rotoscopy techniques   (3)
Masking method
Additional masking techniques
Rotoscoping

Unit: 4 Key and Matte

(5)

Isolating a foreground with shapes
Keying a green screen with matte
Adjusting alpha mattes and spill suppressing
Using secondary mattes

Unit: 5 Motion Track   (5)

Point tracking
Applying tracking data
Connecting Composite nodes
Tracking masks
Planar tracking

Unit: 6 Paint Fix   (5)
Introduction to the Paint node
Additional paint techniques
Transform and Wrap
Animating properties and transforms
Overview of image wraping tools Time wraping

Unit: 7 Grade and Adjustment   (2)
Color matching
Adding film, video, and stylistic effects

Suggested Readings:

1. Borisfx.com retrieved 2021.

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Semester – VI	Paper – IV
Course Code: BSC-AN 604 T	**Title of the Course: Concept Development**
Credits: 02	**Total Lectures: 30 Hrs.**

Course Outcomes (COs):

After completing this unit of study, students will be expected to understand the processes involved in writing short scripts, and
1. Demonstrate understanding of techniques, principles, genres and elements of script writing for screen and live performance
2. Research concepts and process of script writing
3. Develop story, characters and dialogue for scripts
3. Review, revise and edit scripts
4. Communicate ideas clearly in scripts.

Detailed Syllabus:

Unit:1 How to Write a Screenplay for Animation   (08)

1. The History of Animation
2. Finding Ideas
3. How stories work
4. The Basic Animation Writing Structure
5. Types of Animation and other Animation Media
6. The Premise
7. The Outline
8. Storyboard for Writers
9. The Scene
10. Animation Comedy and Gag Writing
11. Dialogue
12. The Script
    - The First Draft
13. Situation, conflict, and resolution—the flow of the story
14. The lowdown on high concept
15. Story-layering, plot, and genre
16. Ten keys to creating captivating characters
17. Theme
18. subtext, and exposition

19. Suspense, comedy, and television

Unit:3 7 Steps to a Stunning Script: A Workbook   (03)

1. Summon your muse
2. Dream up your movie idea
3. Develop your core story
4. Create your movie people
5. Make the necessary revisions

Unit: 4 Proper Formatting Technique: A Style Guide   (07)

1. How to use this guide to craft a compelling and professional screenplay
2. Sample script (with cross-reference codes)
3. Formatting in a nutshell
4. Overall screenplay appearance
5. Scene headings (slug lines)
6. Narrative description
7. Dialogue
- The purpose of the character
- Revealing character
- Conflict can reveal information
- Characteristics of Dialogue
- Comedy Dialogue
8. How to format TV scripts

Unit: 5 Writing and Revising Your Breakthrough Script: A Script Consultant's View

                                                                        (05)

1. The spec script—your key to breaking in
2. Key principles and exercises in revising scenes
3. When to break formatting rules
4. The first 10 pages

Unit:6 How to Sell Your Script: A Marketing Plan   (05)

1. Five steps to selling your work
2. Protect your work
3. Prepare your script for market
4. Assemble your selling tools
5. Create your strategic marketing plan
6. Implement your plan
7. How to find an agent
8. Crafting the query
9. How to pitch without striking out
10. Synopses, one-sheets, treatments, and outlines
11. How to sell your script without an agent
12. Television markets
13. Children's Media

14. The Pitch
15. Agents Networking and Finding Work.

Unit: 7 Case Study   (02)

1. Make a case study on any animated movie.
2. Make a case study on own story(Use Standard References).

Suggested Readings:

https://www.keepwriting.com

1. **The Screenwriter's Bible**: A complete guide to Writing, Formatting, and Selling Your Script **Author**: David Trottier. **ISBN**: 9781935247029

2. **Animation Writing and Development** (From script Development to Pitch)
    By Jean Ann Wright

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Semester – VI	Paper – V
Course Code: BSC-AN 605 T	Title of the Course: Media Communication
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. Introduce the notion of globalization and understand how it impacts multilingual and multicultural communication in new media

2. Introduce the purpose, nature and language specific to variety of new media communication in different corporate and professional environment.

3. Examine the intersection of new media and professional communication practice to enhance the success of corporate and professional communication and the quality of human life.

Detailed Syllabus:

Unit 1- Internet as medium of Communication   (08)

1. Spread of Internet: What is internet?, Salient features and advantage over traditional media;

2. History and spread of internet in India, reach and problem of access;

3. Internet and Knowledge Society;

4. Convergence and Multi-media: Print, radio, TV, internet and mobil**e**

5. New Media and new Technologies

6. Who are the new Media practitioners

7. New Media in Everyday life.

Unit 2- Online Journalism   (07)

1. What is online journalism? : Earlier websites of newspapers, E-books and E-publishing

2. Introduction to content management system

3. Hyper-textuality, Multi-mediality and interactivity

4. Use of various online tools to manage text, links, photos, maps, audio, video, etc.

5. New Media and interpersonal Relationships

6. Status of online journalism today

Unit 3- Aesthetics of Media (07)

1. Content

2. Design

3. Colors and Fonts

4. Template and Navigation Bar

5. Hyperlinks

6. Digital storytelling: Tools of multimedia journalists;

7. Learn to report, write and produce in a manner that is appropriate for online media

8. Feature writing for online media: Story idea, development and news updates

9. Podcast and Webcast

Unit 4- New Media (08)

1. Open source journalism:

2. Responding to the audience, Annotative reporting

3. Citizen Journalists

4. Problem of verification, accuracy and fairness

5. Use of blogs, tweets, etc. for story generation and development

6. Content Filtering and Surveillance

7. Protecting copyright

8. Exploring Cyberspace:

Suggested Readings:

New Media: a Critical Introduction, Second Edition

Links : https://2012books.lardbucket.org/books/a-primer-on-communication-studies/s16-new-media-and-communication.html

1. Nath, Shyam. Assessing the State of Web Journalism. Authors Press, New Delhi, 2002
2. Chakravarthy, Jagdish. Net, Media and the Mass Communication. Authors press, New
3. Delhi, 2004
4. Bhargava, Gopal. Mass Media and Information Revolution. Isha Books, New Delhi, 2004

5. Menon, Narayana. The Communication Revolution. National Book Trust.
6. Pavlik J.V. Media in the Digital Age. Columbia University Press
7. The New Media Handbook- Andrew Dewdney And Peter Ride.

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Semester – VI	Paper – VI
Course Code: BSC –AN 606 T	Title of the Course: Digital Editing -II
Credits: 02	Total Lectures: 30 Hrs.

Course Outcomes (COs):

1. Describe what Adobe Premiere Pro is and how it can help you with your video making needs.
2. Working and editing in the Timeline.
3. Learn advanced editing techniques in the Timeline.
4. Demonstrate working with motion in Premiere.
5. Demonstrate adding and managing video effects and transitions in Premiere.
6. Working with color correction.
7. Working with multi-cameras and audio tracks in Adobe Premiere.
8. Using titles and closed captioning in Premiere

Detailed Syllabus:

Unit: 1 Editing and Mixing Audio   (08)

1. Setting up the interface to work with audio
2. Examining audio characteristics
3. Recording a voice-over track
4. Adjusting audio volume
5. Creating a split edit
6. Adjusting audio levels for a clip

Unit: 3 Sweetening the Sound   (02)

1. Sweetening sound with the Essential Sound panel
2. Adjusting dialogue

Unit: 4 Color Correction   (06)

1. Following a color-oriented workflow

2. Exploring the color-oriented effects

3. Fixing exposure problems

4. Fixing color balance

5. Using special color effects

6. Creating a look

Unit 5: Compositing Techniques   (06)

1. What is an alpha channel
2. Making compositing part of your projects
3. Working with the Opacity effect
4. Working with alpha-channel transparencies
5. Color keying a green screen shot
6. Masking clips

Unit 6: Creating Titles   (04)

1. Getting an overview of the Essential Graphics panel
2. Mastering video typography essentials
3. Creating titles
4. Styling text
5. Working with shapes and logos
6. Making text roll and crawl
7. Introducing captions

Unit 7: Managing your projects   (02)

1. Using the File menu
2. Using the Project Manager
3. Performing the final project management steps
4. Browsing projects with the Media Browser panel
5. Managing collaboration
6. Using the Libraries panel
7. Managing your hard drives
8.

Unit 8: Exporting Frame, Clips and Sequences   (02)

1. Understanding the export options
2. Exporting single frames

3. Exporting a master copy
4. Working with Adobe Media Encoder CC
5. Uploading to social media
6. Exchanging with other editing applications
7. Final practice

Suggested Readings:

Adobe Premier CC Classroom in a Book (2018)

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Semester – VI	Paper – VII
Course Code: BSC-AN 607 P	Title of the Course: Game Production
Credits: 02	Total Lectures: 45 Hrs.

Course Outcomes (COs):
1. Unity allows you to import and assemble assets.
2. Write code to interact with your objects.
3. Create or import animations for use with an advanced animation system, and much more.

Practical List:

1. Designing Concept for Game Building
2. Introduction to Unity
3. Creating Models for Game
4. Applying Texturing & Lighting
5. Implementation of Assets
6. Creating scene using physical properties
7. Adding Audio to Game
8. Creating UI For Game
9. Implementation of Programming Language
10. Exporting Game

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New Arts, Commerce and Science College, Ahmednagar (Autonomous)
Syllabus of T. Y. B. Sc. Animation
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Semester – VI	Paper – VIII
Course Code: BSC-AN 608 P	**Title of the Course: Visual Effects and Digital Editing II**
Credits: 02	**Total Lectures: 45 Hrs.**

Course Outcomes (COs):

1. The industry's most powerful tracking drives Silhouette animation system and can be applied to speed up paint, roto, wrap, and stabilization task.

2. Silhouette includes under the hood enhancement that improves general workflow for professional postproduction and VFX studios.

Practical List:

Visual Effects-II
1. How to remove logos with in paints.
2. Complex wire remove with silhouette.
3. Compositing with surface and DOD Nodes.
4. Roto renders with silhouette.
5. Mocha data integration in silhouette.

Digital Editing-II
1. Music Video: Multi-Cam Editing
2. Music Video: Adjustment Layers & Color Correcting Videos
3. Chroma Keying (Green Screen Removal)
4. Editing a Short Film Scene
5. Exporting Files

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Semester – VI	Paper – IX
Course Code: BSC-AN 609 P	Title of the Course: Internship
Credits: 02	Total Lectures: 90 Days

Course Outcomes (COs):

1. To study and gain Industrial Experience.
2. To understand Production Pipeline.
3. Understanding Team Work.

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Semester – VI	Paper – X
Course Code: BSC-AN 610 T	**Title of the Course: Digital Painting and Illustration**
Credits: 2	**Total Lectures: 30 Hrs.**

Course Outcomes (COs):

1. To learn the how to do Digital paintings of the Photo, Landscapes.
2. Learn how to Edit Photos.

Detailed Syllabus:

Unit: 1 Getting started   (03)

1. About Classroom in a Book

2. What's new in this edition

3. Prerequisites

4. Installing Adobe Photoshop and Adobe Bridge

5. Starting Adobe Photoshop

6. Online Content

7. Restoring default preferences

8. Additional resources

9. Adobe Authorized Training Centers

Unit: 2 Basic photo corrections   (04)

1. Strategy for retouching
2. Resolution and image size
3. Opening a file with Adobe Bridge
4. Straightening and cropping the image in Photoshop
5. Adjusting the color and tone

6. Using the Spot Healing Brush tool
7. Applying a content-aware patch
8. Repairing areas with the Clone Stamp tool
9. Sharpening the image

Unit: 3 Layer basics   (04)
1. About layers
2. Getting started
3. Using the Layers panel
4. Rearranging layers
5. Applying a gradient to a layer
6. Applying a layer style
7. Adding an adjustment layer
8. Updating layer effects
9. Adding a border
10. Flattening and saving files

Unit: 4 Masks and Channels   (03)

1. Working with masks and channels
2. Getting started
3. Using Select and Mask and Select Subject
4. Creating a quick mask
5. Manipulating an image with Puppet Wrap
6. Using an alpha channel to create a shadow

Unit: 5 Painting with the Mixer Brush   (05)

1. About the Mixer Brush
2. Getting started
3. Selecting brush settings
4. Mixing colors
5. Mixing colors with a photograph
6. Painting and mixing colors with brush presets

Unit: 6 Working with Camera Raw   (03)
1. Getting started
2. About camera raw files
3. Processing files in Camera Raw
4. Applying advanced color correction

Unit: 7 Preparing files for the Web   (03)

1. Creating placeholders with the Frame tool
2. Using layer groups to create button graphics
3. Automating a multistep task
4. Designing with artboards

Unit: 8 Producing and Printing   (05)
1. Preparing files for printing
2. Getting started
3. Performing a "zoom test"
4. About color management
5. Specifying color-management settings
6. Identifying out-of-gamut colors
7. Proofing document colors on a monitor
8. Bringing colors into the output gamut
9. Converting an image to CMYK
10. Saving the image as a CMYK EPS file
11. Printing a CMYK image from Photoshop

Suggested Readings:

1. Adobe-Photoshop-Classroom-in-a-book-2020

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Semester – VI	Paper – XI
Course Code: BSC-AN 611 P	**Title of the Course: Digital Painting and Illustration**
Credits: 02	**Total Lectures: 45 Hrs.**

Course Outcomes (COs):
1. To learn Basic drawing fundamentals
2. How to use and edit brushes
3. How to edit photographs.

Practical List: -

1. Drawing Fundamentals
2. How to use Digital brushes
3. Color & Lighting
4. Blending
5. Painting Textures
6. How to draw & paint an eye
7. Painting the human face and its parts
8. Character Design
9. Photo realistic painting
10. Environment or landscape painting