**BSc Animation & VFX**

**Course Matrix**

**Semester: First**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sl. No.** | **Subject Code** | **Subject** | **Credit Structure / Teaching Scheme** | | | **Evaluation Scheme Marks** | | **Hours** | **Credit** |
| **L** | **T** | **P** | **ESE** | **Sessional** |  |  |
| **THEORY** | 1 | BSCAVFX101 | English I | 3 | 0 | 0 | 60 | 40 | 3 | 3 |
| 2 | BSCAVFX102 | Environmental Studies | 3 | 0 | 0 | 60 | 40 | 3 | 3 |
| **PRACTICAL** | 3 | BSCAVFX103 | Foundation Art I | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 4 | BSCAVFX104 | Material Animation | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 5 | BSCAVFX105 | Digital Art I | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 6 | BSCAVFX106 | 2D Digital Animation I | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 7 | BSCAVFX107 | 3D Animation I | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| **Total** | | |  |  |  |  |  |  |  | **21** |

**Semester: Second**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sl.No.** | **Subject Code** | **Subject** | **Credit Structure / Teaching Scheme** | | | **Evaluation Scheme Marks** | | **Hours** | **Credit** |
| **L** | **T** | **P** | **ESE** | **Sessional** |  |  |
| **THEORY** | 1 | BSCAVFX201 | English II | 3 | 0 | 0 | 60 | 40 | 3 | 3 |
| 2 | BSCAVFX202 | Film Appreciation and Analysis | 3 | 0 | 0 | 60 | 40 | 3 | 3 |
| 3 | BSCAVFX203 | Storytelling | 3 | 0 | 0 | 60 | 40 | 3 | 3 |
| **PRACTICAL** | 4 | BSCAVFX204 | Foundation Art II | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 5 | BSCAVFX205 | Digital Art II | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 6 | BSCAVFX206 | 2D Digital Animation II | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| 7 | BSCAVFX207 | 3D Animation II | 0 | 0 | 3 | 60 | 40 | 6 | 3 |
| **Total** | | |  |  |  |  |  |  |  | **21** |

**SEMESTER I**

Course with Credit: **Foundation Art I (3)** Code: BSCAVFX103

Programme: BSc Animation & VFX Semester: **I**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** This course enables the students to learn the medium of Drawing and its importance in visualization. This course allows students to learn, observe, analyze and visualize. The program allows the student to strengthen the drawing skills to support later part of Animation design.

**Catalog Description**: The course Introduces to drawing and its materials, helping in understanding the available medium, style and method, Drawing from Nature, Perspective drawing, Lighting & Shading, Figure Drawing.

**Pre-requisites:** Enthusiasm to draw, no prior drawing skill required and a lot of hard work.

**Course Outline:**

1. **Introduction to Drawing Materials (10 Hours)**
2. Introduction of Unit
3. Papers-Different pencils.
4. Color pencils-Crayons and poster colors.
5. Introduction to drawing the objects, figures from the surroundings.
6. To learn, observe, analyzing, and drawing the mechanical objects, utensils, objects from everyday life.
7. **Perspective drawing (10 Hours)**
8. Introduction of Unit
9. To learn the importance of Perspective
10. Rules of perspectives – To learn one point – two point perspectives- Learn to draw from different eye levels and different angles.
11. **Drawing from Nature (15 Hours)**
12. Introduction of Unit
13. Location drawing and learning to represent trees, plants, bushes, shrubs, insects, birds, and animals with attention to structure and morphology, proportion, volume, and behavior.
14. Dramatizing what has been recorded
15. **Lighting & Shading (15 Hours)**
16. Introduction of Unit
17. To introduce to the concept of light in visualization.
18. To study objects in Lighting and learn to draw them with proper shading
19. To study photographs of well known photographers to understand the tonal variations.
20. Learning Lab: (1) Drawing inorganic and Organic objects from life. (2) Drawing figures/ sketching figures from live [Outdoor and Indoor study]. (3) Drawing plants, trees, flowers, fruits [Outdoor and Indoor study]. (4) Drawing perspective; one point and two point perspective views of furniture, interior and exteriors of buildings. [Outdoor and Indoor study]. (5) Lighting and shading of objects and furniture [Class room]. (6) To create a project on visual elements [ line/shape/form/texture] [ Class room]

1. **Figure Drawing (20 Hours)**
2. Introduction to Figure Drawing
3. Learning Stick Figures
4. Practice with Lines and Stick Figures
5. Mannequin Drawings
6. Drawing Figures in Blocks
7. Drawings from different eye-levels.
8. Basic Anatomical Study
9. Creative Forms of Aliens with Balanced Anatomy;
10. Drawings of Human Figures from Different Backgrounds
11. Drawing Props and Costumes

**Reference Book(s):**

1. Perspective Drawing Handbook, Joseph D'Amelio
2. Fun with the Pencil, Loomis
3. Dynamic Figure Drawing, Burne Hogarth
4. Complete Book of Drawing Technique, Peter Stanyer

Course with Credit: Material Animation **(4)** Code: BSCAVFX104

Programme: BSc Animation & VFX Semester: **I**

**Total No. of Lecture / Practical Hrs: 60**

**Rationale:** To introduce various techniques and styles of Animation, to provide the students hands on experience of simple ideas for animation using the materials available in the immediate surroundings.

**Catalog Description:** The course cover’s different style and techniques available for material animation, creation of different process and methods of material animation.

**Pre-requisites:** Beginner-level proficiency in Art, storytelling and ideation.

**Course Outline:**

1. **Introduction to Material Animation (10 Hours)**

Introduction to material animation, different styles and techniques, popular material animation filmmakers and their Films.

1. **Different Techniques (15 Hours)**

Different techniques – sand, clay, cut out, pin screen, model animation, pixilation, time lapse and other techniques

1. **Process and methods of Material Animation (15 Hours)**

Visualization, methods and production processes of sand, clay, cut out, pin screen, model animation, pixilation, time lapse and other techniques

1. **Material Animation in Action (20 Hours)**

Story and Visualization for material animation films

**References: (Film Screenings)**

1. Quays
2. Films done by Jan Svankmajer
3. Plasticine Animation Caroline leaf
4. Bead Game, Afterlife - Ishu patel
5. Mindscape, Jacques Drouin
6. Papageno, the Adventures of Prince Achmed, Lotte Reiniger

Course with Credit: Digital Art I **(4)** Code: BSCAVFX105

Programme: BSc Animation & VFX Semester: **I**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** The purpose of this subject is to provide the students with training methodologies and specific industry skills that will assist them in developing creative ideas into digital art with emphasis on image manipulation, matte painting and image creation and editing. The students will receive information that will enable them to:

* Understand the design principles used in the creation of digital art.
* Familiarize with the terminologies and concepts for creating and manipulating digital images.

**Catalog Description:** The course cover’s the theory of Art and its, different Digital art methods, tools and technique and available formats.

**Pre-requisites:** Beginner-level proficiency in Art and the basic idea of using a computer.

**Course Outline:**

1. **Theories of Perception (10 Hours)**
2. Introduction of Unit
3. Electromagnetic Spectrum
4. Analog and Digital Colors
5. Symbolism Additive and Subtractive Colors
6. Mixing Colors.
7. Colors for Painting.
8. **Digital Tools, Hardware for Digital Painting (10 Hours)**
9. Introduction of Unit
10. Image Format and Color Representations
11. Image and File Formats
12. File Compressions.
13. Properties of Bitmap Image.
14. Resolutions for Print and Display, Digital color Representation.
15. **Introduction to Raster Graphics Tools (10 Hours)**
16. Introduction of Unit
17. Layers
18. Adjustment Tools
19. Painting
20. Creating raster artworks.
21. Image Manipulation.
22. Color Manipulation.
23. Layer Blending, Masking, Export Parameters.
24. **Introduction to Vector Graphics Tools (15 Hours)**
25. Introduction of Unit
26. Creating Vector Arts
27. Paths and Shapes
28. Vector brushes and colors
29. Layers, Transparency, Grouping, Blending Modes, Managing Artwork, Single and Multipage Illustrations.
30. **Applications (25 Hours)**
31. Digital Painting
32. Images Restoration
33. Images manipulation and collages
34. Vector Art – Graphics and Illustrations
35. Print and Web graphics

**Reference Books:**

1. Adobe Photoshop Cs6 Bible: The Comprehensive, Tutorial Resource, Lisa Danae Dayley, Brad Dayley
2. Adobe Photoshop CC Classroom in a Book with Access Code, ADOBE CREATIVE TEAM Principles of Form and Design by Wucius Wong

Course with Credit: 2D Digital Animation I **(4)** Code: BSCAVFX106

Programme: BSc Animation & VFX Semester: **I**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** The students will receive information that will enable them to: Creating digital animation using Key frame and Tweening Animation Techniques. Understand the workflow to create 2D Digital Animation. Creating and Managing Scenes. Create background art for Animation.

**Catalog Description:** The course cover’s introduction to the tools and software, the methods and technique of Staging, timing, tweening.

**Pre-requisites:** Basic understanding of drawing, volume and animation.

**Course Outline:**

1. **Tools and Interface (10 Hours)**
2. Introduction to Tools and Interface
3. Drawing for Animation
4. Shape Manipulation
5. Working with Strokes and Fills
6. Grouping Shapes, Frames per Second, Stage Size, Background color, Key frames Animation.
7. **Tween Animation (15 Hours)**
8. Introduction of Unit
9. Motion and Shape Tween
10. Guide Paths.
11. Path Animation, Masking, Animating Masks, Gradients and Effects.
12. **Staging and timing (10 Hours)**
13. Introduction of Unit
14. Animation Staging and timing
15. Static Background Scenes
16. Animated Background Scenes, Scene Management, Duplicating and Editing Scenes.
17. **Export Movie (05 Hours)**
18. Introduction of Unit
19. File Management
20. Library Management
21. Workspace customization
22. Compressions.

Learning Lab: 1) Key frame Animation Exercise: Principles of Animation. 2) Key frame Animation Exercise: Key frame Animation, Character Animation. 3) Key frame Animation Exercise: Stick Figure Cycles Animation. 4) Creating Scenes for animation

1. **Applications (30 Hours)**
2. Key frame Animation Exercise: Principles of Animation.
3. Key frame Animation Exercise: Key frame Animation, Character Animation.
4. Key frame Animation Exercise: Stick Figure Cycles Animation.
5. Creating Scenes for Animation.

**Reference Books:**

1. Adobe Flash Professional CS6 Classroom in a Book 1st Edition, Adobe Creative Team
2. How to Cheat in Adobe Flash CS5: The Art of Design and Animation, Chris Georgenes,

Course with Credit: 3D Animation I **(4)** Code: BSCAVFX107

Programme: BSc Animation & VFX Semester: **I**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** when animation started it was on paper (2D Animation) People had a perception that it was restricted to only drawing and cartoons. As the industry matured with computers being introduced, the perception changed to flashy, Photo-realistic or Cartoonish productions for Web games, Movies, Video games etc. The program will enable student to dive in the world of 3d from its evolution, tools used to create animation, animation principles and its application.

**Catalog Description:** The unit start’s with the basics of using a 3d software and introduces to tools and methods, the principles of animation and its application in 3d.

**Pre-requisites:** Basic computer knowledge to start with.

**Course Outline:**

**I. 3D Animation (10 Hours)**

The Art of 3d animation. Importance of classical Animation principles and Implementing in a 3d Space or Area. Evolution and rapid development of 3d animation films globally – to the current scenario

**2. Maya Software (10 Hours)**

Introduction to Maya User interface, Navigation, Tools, Menu Bar, Introduction to Maya Basic Animation Tools.

**3. Graph Editor (10 Hours)**

Graph Editor Tool Bar Buttons, Selecting and modifying keys, Navigating the graph, Selecting items in the graph (curves, keys, tangents), Buffer curves and swap curves, Cycles and holds, Repeating curve segments, Pre – Infinity, Post – Infinity, Modifying animation curves, Modifying tangents, Weighted/Non weighted Tangents, Free, Lock tangent weights, Break, Unify, Spline, Clamped, Linear, Flat, Step, Working with keys, Covert to Break Down, Copying, Pasting and scaling Keys/curve segments.

**4. Dope Sheet (05 Hours)**

Dope Sheet, Moving Keys in Dope Sheet, Time Line, Setting up output file size and resolution, Previewing Animation using Play blast.

1. **Understanding of the Animation Principles (35 Hours)**

**Understanding of the Animation Principles**

**Stretch and Squash**

Basic Exercise to truly understand the Animation Principles- Simple Bouncing Ball

**Timing and Spacing**

Animating a ball/ made of different material/s, surface/s and texture/s – Metal, Rubber, Plastic, Wood.

**Arcs**

Animating different ball/ made of different material/s, surface/s and texture/s – Wood, Ping Pong, at the same time

**Exaggeration**

Animating collision between two or more different bouncing ball in a environment in side view

**Follow Through, overlap**

Animate a Ball with a tail (like a Squirrel)

**Wave Motion**

**SEMESTER II**

Course with Credit: Film Appreciation and Analysis **(3)** Code: BSCAVFX202

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 30**

**Rationale:** The subject imparts the basic understanding of the process involved in analyzing films through the language and grammar. It also provides the history of cinema and its various genres and documents their evolution.

**Catalog Description:** The unit deals with the history of cinema, film genres, story, film language to implement in one’s own film and taking it to the next level.

**Pre-requisites:** Interest in movies of different directors from a different time and the idea of the set would be beneficial.

**Course Outline:**

1. **History of Cinema (03 Hours)**

History of Cinema and Genre Studies. A brief history of early evolution of cinema; Era of silent films –

Introduction to different approaches in story telling as seen from Live Action, Documentary and Animation.

1. **Film Genres (03 Hours)**

Film Genres –Definition - Introduction to various film genres – Categories - Film Noir.

1. **Story structure (10 Hours)**

Story structure: Story / script / Story boarding; Developing Story ideas, designing the Plot, Plot development and Plot devises, Story narration, Character development in the story.

1. **Film Grammar & Language (10 Hours)**

Film Grammar & language - Mise-En Scene, Elements of Mise en scene: Representation of space. Set designing –colour design and symbolism in sets – lighting – costume designing - Acting and types of acting.

1. **Case Studies (04 Hours)**

Case studies/Film viewing and analysis.

**Reference Books:**

1. The Analysis of Film by Raymond Bellour and Constance Penley (Editor).
2. How to Read a Film: Movies, Media, and Beyond by James Monaco.
3. Film Art: An Introduction - Paperback (Nov. 25, 2009) by David Bordwell and Kristin Thompson.
4. Film Form: Essays in Film Theory - Paperback (Mar. 19, 1969) by Sergei Eisenstein and Jay Leyda.

Course with Credit: Storytelling (**3)** Code: BSCAVFX203

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 30**

**Rationale:** This course enables the students to learn the art of storytelling. It enables student edited and imaginative the concepts for Animation. It provides knowledge in narrative and non narrative techniques of communication as applied in Animation films and television advertisements.

**Catalog Description:** The Course cover’s Ideation of the story, its arrangement in cinematography as plots and action, type of character, place and period of the event narrated.

**Course Outline:**

1. **What is Story (05 Hours)**
2. Introduction:
3. Relevance in society Introduction to ideation and Imagination of storytelling
4. Resources and Text –Oral – and performance – film as different mediums. Story genres and different audience.
5. **Story -Plot & sub plots (10 Hours)**
6. Introduction of Unit
7. Plot devices – Other Devices
8. Dramatic structure –Conflict - Setting mood
9. Rising action -Falling Action –Dénouement – Resolution
10. Narrative point of view - Linear & non linear – linear story structures
11. **Characters (05 Hours)**
12. Introduction of Unit
13. Characters from the story- to explore different aspects of a character.
14. Character driven stories.
15. Different characters from the story. Characters from various contexts and cultural and class backgrounds
16. **Environment of the story (05 Hours)**
17. To study the environment of the story, Characters and their relations to the place, geographical, historical and any other associations with places.
18. To learn to understand and construct different events. Events – driven stories.
19. **Visual narration through Illustration (05 Hours)**
20. Single panel to multiple panels Storytelling in Comics.
21. To learn various attributes of Comics – Visualization – Narration – Dialogue writing etc. for comics.
22. Assignments: 1) To create story ideas - To tell a story through text. 2) To create story ideas - To tell a story through single visual. 3) To create a character and Events driven story. 4) To create an illustration for a story. 5) Project: To create a comic panel for a story.

**Reference Books:**

1. **Story: Substance, Structure, Style and the Principles of Screenwriting. Robert McKee**
2. **The Way of the Storyteller. Ruth Sawyer**
3. Facial Expressions: A Visual Reference for Artists. Mark Simon
4. The Animation Book: A Complete Guide to Animated Filmmaking--From Flip-Books to Sound Cartoons to 3-D Animation, Three Rivers Press.
5. Making Comics: Storytelling Secrets of Comics. Scott McCloud

Course with Credit: Foundation Art II (**4)** Code: BSCAVFX204

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** Develop an ability to understand materials, behavior, and movement of objects. Understand kinetics and learn to recreate structure, force, and body language of any subject/object on a two-dimensional surface. Know how to interpret from the real world for representation, Develop methods to record the motion of objects with their inherent qualities as a series of static positions, To be able to draw from imagination based on the above learning.

**Catalog Description:** This is an extension of Foundation art I which gets deeper as it gets inside as we advance and as we deal with detailed anatomy, camera angles, lighting and shading from the real world.

**Pre-requisites:** Good hand at drawing and successful completion of Foundation art I.

**Course Outline:**

1. **Drawing Principles (10 Hours)**
2. The Evolution of drawing style in Animation
3. Animation Aesthetics - Shape and Form, Line and Silhouette, Tension, Direction, Straight against Curve, Logic in Drawing, Planes, Solidity, Depth and Volume
4. **To draw from life- observational Drawings of human forms (20 Hours)**
5. Introduction of Unit
6. Stick Drawings – in various pose actions
7. Mannequin Drawings – in a different pose and actions, Learn to draw from different angles and eye levels.
8. **Human anatomy (15 Hours)**
9. Introduction of Unit
10. Different parts of human body and functional aspects of hands, legs etc and the proportions in relation to each other
11. Male female and children, Gods and Super Humans, Creative forms of aliens with balanced anatomy

1. **Life study (15 Hours)**
2. Realistic style drawings of Human figure
3. Life study in Class room using live models
4. Learn to simplify the human drawing in Cartoonist style.
5. Learn to use simple shapes like circle, oval and curves to exaggerate the human figures.
6. Assignments: 1) To draw various shapes and forms from life and imagination. 2) To draw stick drawings in various pose and actions. 3) To draw mannequin drawings in various pose and actions. 4) To Draw Anatomy drawings of Male female and children. 5) To draw Gods and Super Humans. 6) To draw Cartoonist style figures/ objects / Interiors –Exteriors. 7) Creating animated sequences from the drawings studies and quick sketches. 8) Creating animated sequences from drawings of buildings, cityscapes
7. **Art Representation and Art History (10 Hours)**
8. Composition ( Memory Drawing)
9. Human or Animal Drawings with Background
10. The History of Art
11. Relationship between Art and Society.
12. Western Art, Indian art, Oriental Art, Aesthetics Of Art, Analysis and Criticism.

**Reference Books:**

1. Creating animated sequences from drawings of buildings, cityscapes. by H V Carter
2. Figure Drawing for all its worth, Andrew Loomis
3. Dyanmic Figure Drawing, Burne Hogarth.
4. Dynamic Life Drawing for Animators, Mike Mattesi.

Course with Credit: Digital Art II (**4)** Code: BSCAVFX205

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** The students will receive information that will enable them to: Understand the concept of creating textures, brushes, abstract and thematic designs. Create effective typography designs used for raster and vector illustrations and designs. Creating Matte Paintings to be used as concept arts and Parallax scenes.

**Catalog Description:** This is an extension of Digital art I which get deeper with tools and technique preparing the student for advanced and more challenging task in matte painting, character design and concept art.

**Pre-requisites:** Good hand at drawing in the computer and successful completion of Digital art I.

**Course Outline:**

1. **Digital Color (10 Hours)**
2. Digital Color mixing, Custom Brushes, Custom Palette for Painting
3. Digital Character Painting
4. Concept art – Environment.
5. **Ink and Painting (10 Hours)**
6. Colorizing
7. Artistic Filters
8. Texture Painting
9. Painting for 3D, creating passes.
10. **Typography Fundamentals (10 Hours)**
11. Introduction Typography Fundamentals
12. Fonts
13. Designing Type
14. Typography Design and Art
15. Special Effects for Typography.
16. **Background (15 Hours)**
17. Introduction of Unit
18. Digital Ink and Paint
19. Background Composition
20. Art of Collages, Creating Digital Collages.
21. Learning Lab: 1) Using Photoshop as an artistic tool-Colour, Symbolism, Ink and Painting, Colorizing, Artistic Filters. 2) Abstract Design-Creating Abstract and Thematic Designs, Creating Abstract Brushes, Multilayered Background Design using Blend Modes. 3) Typography (Text Design), Perspective Transformation, Color Corrections, Color Blend, Concept Art, Vector art, Character Vector art. 4) Creating Texture painting including passes.
22. **Matte and Texture Painting**  **(25 Hours)**
23. Visualizing the matte scene.
24. Resources for Matte Painting.
25. Techniques for Effective Matte Painting.
26. Creating Tiled and Seamless Textures.
27. Creating texture maps for textures.

**Reference Books:**

1. Adobe Photoshop Cs6 Bible: The Comprehensive, Tutorial Resource, Lisa Danae Dayley, Brad Dayley
2. Beginner's Guide to Digital Painting in Photoshop: Volume 1, Richard Tilbury, Nykolai Aleksander
3. Digital Painting Techniques, 3dtotal. Com Ltd.

Course with Credit: 2D Digital Animation II (**4)** Code: BSCAVFX206

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** The students will receive information that will enable them to: Construct characters using flash symbols and rig it for animation. Animate background layouts and characters using 2D animation principles. Creating basic scripted animation. Animating complete scenes from start to finish, including sound.

**Catalog Description:** The course cover’s Creating Assets and its use to create basic animation.

**Pre-requisites:** Good hand at drawing and successful completion of digital art I.

**Course Outline:** Symbol construction and animation

1. **Flash symbols (08 Hours)**
2. Nested Symbols
3. Rigging Symbols
4. Animating Symbols, Layout Composition Cycles and Holds.
5. **Character animation using Symbols (12 Hours)**
6. Walk cycles, Run Cycles
7. Camera Angles, Lip Sync, Creating Symbols for Lip sync
8. Creating Effects for scenes
9. **Animate background layouts (10 Hours)**
10. Digital Ink and Paint
11. Inking Scanned Drawings
12. Painting Techniques
13. Creating Background Composition
14. Layering Artwork for Animation.
15. **Color Styles and Techniques (15 Hours)**
16. Colorizing, Color Styles and Techniques
17. Cleanup Work
18. Basics of Scripting, Scripted Animation
19. Loop and Condition based scripted animation
20. Interactive elements for scripting, Scene Management.
21. Learning Lab: 1) Character Construction, Character Rigging, Symbol Construction, Symbol Animation, Symbol Library Management. 2) Character animation in Flash using both Key frame & Symbols. 3) Layout Design and Animation-Background Composition, Background coloring. 4) Working with Animation techniques outputs, Importing the footage, Colorizing, Cleanup Work. 5) Creating animation using scripting.

1. **Mini Project (25 Hours)**
2. Story or Gag Ideation
3. Media Selection [Mobile,Web,HD]
4. Pre Production
5. Planning and Timeline
6. Adding Sound [ BG and Foleys ]
7. Review and final edit, exporting for different Medias.

**Reference Books:**

1. Adobe Flash Professional CS6 Classroom in a Book 1st Edition, Adobe Creative Team
2. How to Cheat in Adobe Flash CS5: The Art of Design and Animation, Chris Georgenes

Course with Credit: 3D Animation II (**4)** Code: BSCAVFX207

Programme: BSc Animation & VFX Semester: **II**

**Total No. of Lecture / Practical Hrs: 70**

**Rationale:** This subject gives an insight into complete animation principles, tools,

more character animation techniques due to the increase demand for 3d animation content and different style produced 3d animation is getting complex and intense, there is a need to bridge with lot of realistic and believable animation there is a demand for mechanics in motion.

**Catalog Description:** This is an extension of 3d animation I and goes deeper into 3d commonly known as CGI animation, the animation principles in detail with its application, tools controlling, poses, the mechanics of motion and its propagation.

**Pre-requisites:** Hands on 3d animation I and basic animation drawing.

**Course Outline:**

1. **Exclusive animation Principles understanding and application - using 3d /Maya Space (15 Hours)**

Weight, Posing (+ anatomy), Non-symmetrical Posing and Performing. Visual styling. Blend motion. Cinematography. Facial animation. User-controlled animation., Plan Ahead, Blocking & Refining, Intentionality, Snap, Isolation, Solid Modelling and Rigging Skills

1. **Graph editor (05 Hours)**

**Other important areas of Graph editor -** Change Rotation, Interpolation, Mute/Unmute Bake Channel, Resample Curves Simplify curves.

1. **Path animation (10 Hours)**

Creating a Path Animation, The Attach To Path Options Window, Character Animation – Creating Poses, Posing - Normal and Extreme poses - Old people, Martial artist, Dancer, Skater

1. **Basic Body Mechanics and Motion (20 Hours)**

Walk Cycles and Holds – Bipeds Walk cycle, Normal, Double bounce, Characterized, Limping. Run cycles, Jog, Sprint, Full Run, Jumping, Diving from a Springboard,

1. **Understanding the importance of Weight and Balance, movement of Hips (20 Hours)**

Kicking a football, Stepping from one Side to another Side, Jump over a small ditch/hole

Climbing a wall, A simple Dance Move