

St. Xavier's College (Autonomous)



M.Sc. Integrated Multimedia SYLLABUS

2018 - 2019

Department of Multimedia

30, Mother Teresa Sarani
Kolkata-700 016

M.Sc. in Multimedia (Common)

❖ Semester-I

1. Photography (MM4101C)
2. Basic Drawing-Fine arts and aesthetics (MM4102C)
3. Graphic Design-Illustration and Typography (MM4103C)
4. Audiography / Sound Design (MM4104C)
5. Digital methods I: Photoshop, Illustrator (MM4105C)
6. Foundation Course I (FD4101T)

❖ Semester-II

1. Script for Media (MM4201C)
2. Art history and Figure drawing (MM4202C)
3. Story Designing (MM4203C)
4. Animation Fundamentals (MM4204C)
5. Digital methods-II: Animate CC (MM4205P)
6. Foundation Course: II (FD4202T)

❖ Semester-III

1. Human body and Creative Drawing (MM4301C)
2. Film Studies (MM4302C)
3. Preproduction for film and maquette making (MM4303C)
4. Advanced 2D Animation-I Biomechanics and animation (MM4304C)
5. Digital methods-III: InDesign CC (MM4305P)

❖ Semester-IV

1. Media studies (MM4401C)
2. Production Process: Stop Motion Animation (MM4402C)
3. Advanced 2D Animation-II- Facial Expression (MM4403C)
4. Introduction to Maya -Modelling and Texturing (MM4404C)

❖ Semester-V

1. Advanced 3D -Rigging and Animation (MM4501C)
2. VFX -Compositing and Visual Effect (MM4502C)
3. Audio: Dubbing (MM4503C)
4. Applied Arts & Comics (MM4504C)
5. ENVS I (ES4501T)

❖ Semester-VI

1. Art History (MM4601C)
2. Advanced 3D - Lighting and Rendering (MM4602C)
3. Live Action Film: Production and Editing (MM4603C)
4. Advanced 3D - Dynamics (MM4604C)
5. ENVS II (ES4602P)

M.Sc. in Multimedia with Specialisation in Animation

❖ Semester-VII

1. Drawing for Animation (AMM4701C)
2. Cultural Studies (MM4702C)
3. Acting and Choreography (AMM4703C)
4. Experimental Animation (AMM4704C)

❖ Semester-VIII

1. Story development & Screenwriting for Animation (AMM4801C)
2. Adv. Character construction: Portraiture, Caricature, Hybrid 2D/3D (AMM4802C)
3. Layout and Asset Design (AMM4803C)
4. Digital Character Animation 2D/3D (AMM4804C)
5. Research and choosing of the topic for thesis (AMM4904D)

❖ Semester-IX

1. Cultural Studies II (MM4901C)
2. Animation Studies: Contemporary Trends (AMM4902C)
3. Post Production Tools and Techniques (AMM4903C)
4. Final Thesis (AMM4904D)
5. 2D/3D Project Preproduction: Sound design, Animatics (AMM401PJ)

❖ Semester-X

1. Individual Project: Production / Postproduction (AMM401PJ)
2. Internship (AMM402IN)

Semester-I

Course Objective:

The course is to familiarize the basic of contemporary photography technique to equip students with job oriented skills and theoretical knowledge in still photography and A/V production.

The first and major part of the course consists of still photography. The course stresses the application of theory to practical problems and the theoretical base of the course is strongly complemented by hands on training. This part culminates in the production of a 'Photo feature' and then consist of A/ V production.

- Working principal of a DSLR and Mirrorless Camera
- Shutter and Aperture
- Depth of field and factors affecting depth of field
- Photographic Lenses
- Difference between film and Digital
- Filters
- Colour
- Lighting
- Metering
- Elements of composition
- Appreciation of masters of photography.

Evaluation:

CIA:	20 marks
Theory:	20 marks
Photo feature:	30 marks
A/V Production:	30 marks
Total =	100 marks

Reading List:

- Langford, M. (1986). Basic photography. London: Focal Press.
- Langford, M. (1978). The step-by-step guide to photography. New York: Knopf.
- London, B., & Upton, J. (1998). Photography. New York: Longman.
- Dave Johnson (2002). How to Do Everything with Your Digital Camera

Learning Objects: To understand various aspects of Fine Art and aesthetic in a very basic level. "A sure way to keep from making static, lifeless drawings is to think of drawing verbs instead of nouns".

Unit-1

- ❖ Visual Reading; Basic study of world Visual Language (Sign, symbols, allegory etc.)
- ❖ Picture Reading; The potential of picture in daily life and to understand not only the surface, but also the Inner Power.
- ❖ History of Arts and Aesthetics; Basic understanding of Art history and aesthetics.
- ❖ Understanding Colour; Basic idea and understanding of colour and its language.

Unit-2

- ❖ Basic Object Drawing; Study of basic shapes and forms to understand the primary form and structure
 - ❖ Gesture drawing for animation and perspective study.
- End Semester submission (Individual): A diary of Art history, aesthetic and drawing
Extensive still life study of different shapes, including organic and inorganic objects.

Suggested books:

- Elements of Art, Richard Pumphery, Prentice Hall.
- Aesthetics, Dr. Sudhir Nundy, University of Calcutta Publication.
- Indian Art A Concise History, Roy. C. Craven, Thames and Hudson,
- A history of Modern Art, Arnason and Prather, Thames and Hudson
- World History of art, Hugh Honour and John Fleming, Lawrence King
- Ways of seeing, John Berger, BBC
- Cartoon Animation by Preston Blair, Walter Foster Publishing
- Cartooning: Concepts and Methods, Part I: Figure Drawing Basics by Don Simpson
- Fun with A Pencil: How Everybody Can Easily Learn to draw by Andrew Loomis

Learning Objects: To understand the interaction of word & images, space & form and the visual communication in our daily lives.

- Design Definition; Logic of Designs, function, technology and aesthetics.
- History of Design; Historical and Socio-political aspects of design, Bauhaus, German Poster Design, etc...
- Indian Design, Western Design and Cultural Exchange between them
- Principles of Design; the fundamentals and various laws of design.
- Understanding of fonts, space, and form.
- History and development of Typography; chronological study of typography

End Semester Submission (Individual): A book of Design.

Study of typography, symbols and sign age. Creating your own typeface in the class room.

Suggested books and media:

- Thames & Hudson (New edition 2003): The Thames & Hudson Dictionary of Graphic Design and Designers, London
- Hollis Richard (1994): Graphic Design, a Concise History; Thames & Hudson, London
- Campbell, A (1993), The New Designers Handbook; Little, Brown & Company; 2nd edition, London
- Documentary: Helvetica (2007), Director- Gary Hustwit

Subject: Audiography/ Sound Design
Subject Code : MM4104C

Semester-I
Hours/Week-4
Credit-4

Course Objective:

Students will be acquainted with the basics of the science and aesthetics of sound. They will also acquire basic skills required for recording using diverse equipment.

SOUND IN NATURE:

Nature of sound waves, Propagation process, Frequency, Amplitude, Wavelength, Pitch, Velocity of travel in different mediums, Loudness, Pitch, Reverberation, Reflection, Absorption, Diffraction, Refraction, Interference, Delay and echo.

Theory: (12 classes)

SOUND IN RECORDING:

- * Historical aspects of sound recording and reproduction.
- * Analogous and digital audio technologies.
- * Signal chains and their different components: Microphones, interconnects, mixing consoles, monitoring systems.
- * Microphones: Basic Designs, Limitations and Advantages of different types, Polar Responses and their connotations, Special types, Accessories.

USE OF SOUND IN AUDIO-VISUAL MEDIA:

An introduction to the creative use of audio in different fiction and non-fiction scenarios.

Practical: (24 classes)

- * Identifying, understanding the specifications of different audio equipment and learning their uses.
- * Recording, using recording devices and Digital Audio Workstation.
- * Making of a short audio production.

Suggested Reading:

- Kenny, Tom. Sound for picture, the art of sound design for film and tv (mix pro audio series). Artistpro. 2000.
- Rumsey, Francis and Tim McCormick. *Sound and Recording*, Focal Press, Sixth Edition. 2009.
- Everest, F. Alton, and Ken C Pohlmann. *Master Handbook of Acoustics*. The McGraw-Hill Companies. 2009.

Subject: Digital Methods I
Subject Code: MM31511P

Semester-I
Hours/Week-2
Credit-2

Learning Objects: Photoshop, Illustrator helps to execute imagination digitally and increase the technical skill for the production.

Both the software should give a chance to learn and understand the digital way of creative learning in a modern setup.

Photoshop for photo editing, retouching and designing

About The Software and basic colour theory

Basic knowledge about vector and raster graphics, pixel, resolution, different colour modes, units and how to implement research before starting the digital work.

- Opening, Viewing, and Saving Files
- How to control the canvas (working area) and screen mode
- Working with Layers. Layers & Masking, How layers work, creating layers, blending modes, styles, renaming & grouping layers.
- Using images, guides, grids and rulers with transform tools.
- Working with text, brushes and pen tool
- Vector Drawing technique
- Advanced compositing. Retouch and correction the images with different retouching tools. Use of different image adjustment options.
- Use of Effects & Filters.
- Vanishing point filter and Warp Perspective.
- Use of different file formats for web, print, and digital. How to export the file in different file format according to the requirement.
- How to interact Photoshop with other adobe applications.

Suggested Reading: i) Adobe Photoshop CC 2017 Edition by Andrew Faulkner & Conrad Chavez.
Publisher: Adobe Press, 22 December 2016, San Francisco.

Learning Outcomes: They will create different types of commercial and digital works, corrections and retouching their own photograph.

- Getting to know the Illustrator workspace and preferences.
- Understanding paths, views, selection tools, fills and strokes.
- Creating basic geometric shapes with the Shape tools.
- Transform tools including scaling, rotating, distorting, shearing, and reflecting.
- Using the Bézier Pen, Direct Selection tool, and Anchor Point tool efficiently.
- Using Layers panel to keep your art project organized.
- Using transparency, gradient and mesh
- How to apply clipping mask.
- Using the Mesh tool.
- Creating a compound path.
- Understanding and creating the five kinds of custom brushes. Using outline, stroke and transform panel.
- Using the Pathfinder panel to make complex shapes.
- Creating symbols and using the Symbol tools.
- Creating effects and saving Graphic Styles.
- Applying 3-D effects to shapes.
- How to interact Illustrator with other adobe applications.
- Finally create a digital portfolio and learn how to export the illustrator file in different extensions.

Suggested Reading: i) Adobe Illustrator CC 2017 Edition by Brian Wood. Publisher: Adobe Press, 17 December 2017, San Francisco.

Learning Outcomes: A complete digital portfolio with work of print media.

1. Religion – The origin of religion, the religious and social role of religion.
2. Hinduism: Introduction-God-Man-World concept, Human destiny, Evil-Suffering, life after death, rites and rituals and worship, sacred texts, a popular prayer - *Gayatri* mantra, principal sects, Hinduism and social system – caste system, samsara, festivals and holy places, and comparative elements in other religions.
3. Christianity: Introduction-God-Man-World concept, Jesus Christ, Human destiny, Evil-Suffering, life after death, rites and rituals (Sacraments) and worship, sacred texts. A popular prayer – ‘Our Father’, principal sects, festivals and holy places, and comparative elements in other religions.
4. Islam: Introduction-God-Man-World concept, Muhammad, Human destiny, Evil-Suffering, life after death, rites and rituals and worship, sacred texts, a popular prayer -“The Call to Prayer”, principal sects, Sufism, Militant Islam, festivals and holy places and comparative elements in other religions.
5. Prayer and Spirituality: St. Ignatius of Loyola and Ignatian Spirituality
6. Spiritual Quotient: Prayer and spirituality in Personal and Public life (Social)
7. Faith Vs Fanaticism: Communal aspect of religion
8. Inter-Religious Dialogue: steps to foster unity among different followers of faith traditions

Semester-II

Course Objective:

This course focuses on the creative, analytical and professional aspects of script writing, in the context of the contemporary film and television industry. In this course students present and discuss their own work with other students in a supportive environment. There are also class exercises, lectures, screenings, master classes, seminars and individual tutorials.

- Introduction to the role of writer- elaborative efforts
- Script Writing for fiction
- Script Writing for non-fiction

Elements of structure- beginning middle and end

Character, space, time

Narrative Styles- fiction

Shot division and Storyboarding

- Writing an AV script : Fiction– maintaining proper/desired format
- Scripting for Television: TV genre with focus on any one genre
- Scripting for Film
- Writing TV Advt. Copy (TVC) for Print and AV

Evaluation

CIA	= 20 marks
End Sem Assessment	= 80 Marks
Total	= 100 Marks

Reading List:

- Swain, D. V. (1976). Film scriptwriting: A practical manual. New York: Hastings House.
- Berman, R. A., & Berman, R. A. (1988). Fade in: The screenwriting process. Westport, CT: M. Wiese Film Productions.
- Bordwell, D., & Thompson, K. (2001). Film art: An introduction. New York: McGraw Hill.
- Monaco, J. (2000). How to read a film: The world of movies, media, and multimedia: language, history, theory. New York: Oxford University Press.
- Kaushik, S. (2000). Script to screen: An introduction to TV journalism. New Delhi: Macmillan.

Subject : Art history and Figure drawing

Subject Code : MM4202C

Semester-II

Hours/Week-6

Credit-6

Learning Objects: To Study the various aspects of different Art movements and higher level drawings.

Unit-1

- ❖ Understanding various Art movements and isms developed in the west: To understand Historical and Socio-political development through various art movements.
- ❖ Indian art: Art of Ajanta, Ellora, Mughal and colonial art. Beginning of modernism in India: Abanindranath Tagore, Rabindranath Tagore, Gaganendranath Tagore, Nandalal Bose, RamkinkarBaiz.
- ❖ Understanding Composition and Structure, Indian style of composition and western style of composition.
- ❖ Understanding of Forms and Space, Indian ways and western ways of seeing the form and space.

Unit-2

- ❖ Study of Birds, Animals Anatomy.
- ❖ Study of Human Anatomy.
- ❖ Study of Portrait to caricatures.

End Semester Submission: Individual Portfolio (Minimum 20 numbers of drawing)

Lecture demonstration and film screening on various Art movements. Extensive study of human anatomy in the class room.

Suggested Books:

- Indian Art, Partha Mitter, Oxford University Press.
- Indian Art, A concise History, Roy. C. Craven, Thames and Hudson.
- Mirror of the world, A new History of Art, Julian Bell, Thames and Hudson, 2010. A chronology of art, Iain Zaczek Thames and Hudson, 2018.
- The Art of Animal Drawing: Construction, Action Analysis, Caricature by Ken Hultgren, Greenpoint Books (31 May 2016).
- Figure Study Made Easy by Aditya Chari, Grace Prakashan; 11th Edition edition (1 December 2008). Art of Drawing the Human Body , Sterling (November 1, 2004).
- How To Draw Caricatures by Lenn Redman ,McGraw-Hill Education; 1 edition (April 22, 1984).

Subject: Story Designing
Subject Code : MM4203C

Semester-II
Hours/Week-5

Credit-5

Learning Objects:

- To understand the need of story writing and designing.
 - To understand the need of Preproduction process.
-
- Historical and Political aspect of Storytelling and Story Writing.
 - Construction of the story
 - Understanding the basics of the preproduction process
 - Character Design: Physical, Social and Psychological aspects
 - Creation of animation friendly 2D emphasizing the look and appeal of a character, personality, psychology, context within an environment
 - Create a range of characters that work as a cast
 - Designing for the screen
 - 2D Volumetric design
 - Costume design and period design
 - Character lineup (Turn around connected with Animation Fundamentals)
 - model sheet and expression charts
 - Deeper exploration of the human muscular and skeletal structure and volumetric drawing from a model
 - Realistic drawing, light, value and techniques for making the 2D drawing look more 3-dimensional
 - Narration with limited characters
 - Story board

Individual Semester Project: Design and Illustrate a Story Book/ Graphic Novel.

Extensive story reading session and lecture demonstration in class room. Also study and practice of various illustration styles

Class sessions will consist of lectures, demonstration, studio work, critiques, video/dvd viewing, and discussions focusing on class assignments. The class format will take on a variety of styles, as the subject dictates. Examples will be presented and discussed in lectures, dvds/videos and demonstrations.

Learning Objective: To understand the different terminologies and types of animation student should also get an idea about animation history and importance of acting in Animation process.

Unit-1

Type of Animation

Understanding of different types of animation AKA production pipeline – Animation Process and style – 2D classical animation – 3D animation – Stop Motion Animation -

Unit-2

History of Animation (Theory)

Unit-3

Applying Animation Principles

Coin roll – Ball bouncing (Rubber and Iron Ball) – Pendulum with thread – Bird Fly – Blob Jump.
2D character turnaround.
Introduction to exposure sheet and field guide.

Suggested Books:

- The Animator's Survival Kit expanded edition by Richard E. Williams, Faber; Main - Revised edition (5 November 2009)
- The ILLUSION OF LIFE: DISNEY ANIMATION (Disney Editions Deluxe) by Frank Thomas, Disney Editions; Revised, Subsequent edition (5 October 1995).
- Cartoon Animation (Collector's Series) by Preston Blair, Walter Foster Publishing; used edition (1 January 1994).

Learning Objective: Animate CC helps to increase the key techniques for working in animation. Export the work for different platform.

- About The Software and basic tools
- How to control the stage (working area) and screen modes
- Opening, Viewing, and Saving Files
- Animate simple vector objects
- Work with shape tween animation
- Applying mask and motion path method in different tween animation
- Use of brush and paint brush tool
- Complex graphics on a single layer
- Applying different effects in dynamic symbol.
- Working with Symbols
- How to create a web banner animation with symbol.
- How to create 2D frame by frame animation.
- Export the file in graphics and video format.
- Interacting with other adobe applications.

Suggested Reading: Adobe Animate CC by Russell S. Chun. Publisher: Adobe Press, 22 December 2017, San Francisco.

Learning Outcomes: Frame by frame animation how to work with symbols, graphics and tween animation.

Subject: Foundation Course II: Personality Development
Subject Code : FD4201T

Semester-II
Hours/Week-1
Credit-1

Learning Objective: This single credit foundation course on “Personality Development” will consist of three themes of

- Personal,
- Interpersonal and
- Social Skills

Which are essential for today’s youth to face the demands and challenges of everyday life efficiently and effectively.

The aim of the course is to develop ability in students to maintain a state of well-being, and adapt and demonstrate positive behavior while interacting with others in everyday life situations.

The expected learning outcomes of this foundation course are:

- Developing personal skills on creative thinking, critical thinking, decision making, time and stress management.
- Developing interpersonal skills on resolving conflicts, expressing personal opinions and views, and being empathetic towards others.
- Developing a healthy attitude towards others with personal integrity, justice and equality in the society.

Semester-III

Learning Objects: To understand and study of higher level drawing for Animation.

Unit-1

- ❖ Advanced study of various Birds, Animals and Humans movements.
- ❖ Model (Male & Female) Study

Unit-2

- ❖ Drawing for Classical Animation
- ❖ Capturing life through drawings, force Drawing.

End Semester Submission: Portfolio of minimum 15 life drawing.

Extensive life drawing in the class room by different medium.

Suggested Books:

- Anatomy for Fantasy Artists: An Essential Guide to Creating Action Figures and Fantastical Forms 2nd Edition by Glenn Fabry (Author), Michael Cunningham (Author), Ben Cormac (Author), Barron's Educational Series; 2 edition (March 1, 2013).
- Bridgman's Complete Guide to Drawing from Life by George B. Bridgman (Author), Sterling; 5th edition edition (30 November 2017).
- Drawn to Life: 20 Golden Years of Disney Master Classes: Volume 1: The Walt Stanchfield Lectures, publisher-Routledge; 1 edition (23 March 2009)
- Force: The Key to Capturing Life Through Drawing by Mike Mattesi (Author), iUniverse (1 June 2004)
- Force: Animal Drawing: Animal locomotion and design concepts for animators (Force Drawing Series) by Mike Mattesi,
- Sketching for Animation: Developing Ideas, Characters and Layouts in Your Sketchbook, by Peter Parr Fairchild Books (10 March 2016)

Learning Objects: To understand the language of film and how film works on different societies.

- ❖ Early cinema Paradigm: Thomas A. Edison, The Lumiere Brothers, Georges Méliès
- ❖ Silent Hollywood Films: Edwin S. Porter, D.W. Griffith, Charlie Chaplin, Buster Keaton
- ❖ Indian Silent Films: The Palke Era
- ❖ Soviet Montage: Lev Kuleshov, Dziga Vertov, Sergei Eisenstein, Vsevolod Pudovkin
- ❖ Italian Neorealism: Roberto Rossellini, Vittorio De Sica, Luchino Visconti
- ❖ Documentary films of great directors: Dziga Vertov, Robert Flaherty, Alain Resnais, Satyajit Ray

Lecture demonstration on various aspects of film making and how it influences the society. Film screening in regular basis.

Suggested Reading:

- The Oxford History of World Cinema, Geoffrey Nowell-Smith(ed), 1999.
- How to read a Film, James Monaco, Oxford University Press.
- The Classical Hollywood Cinema: Film Style & Mode of Production to 1960, David Bordwell, Janet Staiger and Kristin Thompson, Routledge & Kegan Paul, London, Melbourne and Henley.
- Italian Film in the Light of Neorealism, Millicent Joy Marcus, Princeton University Press, 1986.
- Early Soviet Cinema: Innovation, Ideology and Propaganda, David Gillespie, Wallflower Press, 2000.
- Non-Fiction Film: A Critical History, Richard M. Barsam, Indiana University Press, 1992.

Learning Objects: To understand the Character, poses and layouts for animation

Unit 1:

- 3D character design and animatability: exploration with modeling clay and 3D software
- Introduction to 3D software– Viewport Acceleration, basic tools and basic information of 3D pipeline
- Introduction to Polygonal Modeling, NURBS modeling and Low-poly props modeling

Unit 2:

- Understanding the basics of the preproduction process
- Animation appreciation and construction of the story
- Emphasizing the look and appeal of a character, personality, psychology, context within an environment
- Case study: Characters from The Mahabharata
- Action Analysis: Understanding animation from the masters. Tracing and retiming the key frames and in-betweens of existing sequences
- Live Action: Charles Chaplin
- Animation: Disney classical animation (e.g. Bare necessities)
- Understanding of poses, exaggeration and line of action for a character

- Practice sequences for animation layout using the extreme poses and timing accordingly

Unit 3:

- Animation layout: layout from storyboards, correcting storyboards
- Background layout with respect to the narrative. Focus on lighting and composition
- Classical layout techniques: Concepts of layering, overlay, underlay
- Understanding of basic Animatics

Suggested books and media:

- Chaplin, C. (2012), My Autobiography, Penguin Books
- Robinson, D., Chaplin: His Life And Art, Penguin Books
- Mary Murphy, Beginner's Guide to Animation: Everything You need to Know to Get Started

Subject: Advanced 2D Animation-I Biomechanics and animation
Subject Code :MM4304C

Semester-III
Hours/Week-6
Credit-6

Learning Objective: Main objective of training for this area is to give detail idea about involvement of biomechanics in animation and implementation of animation principles in the real life observations.

Unit-1

Biped movement

Understanding Human walk-cycle- Progressive walk – Perspective walk- Characteristic walk- run cycle- animation cycle of a created character from Walk to run, finally jump.

Unit-2

Quadruped movement

Understanding four legs animal anatomy- synchronization of leg movement- quadruped walk cycle – progressive walk.

Suggested Books:

- The Animator's Survival Kit expanded edition by Richard E. Williams, Faber; Main - Revised edition (5 November 2009)
- Cartoon Animation (Collector's Series) by Preston Blair, Walter Foster Publishing; used edition (1 January 1994).
- Timing For Animation by Whitaker, Elsevier (2009)
- Animation: The Mechanics of Motion (Visual Effects and Animation Series) by Chris Webster, Focal Press; 1 edition (26 July 2005)

Learning Objective: Designers will build a strong foundation of typographic, page layout, and document-construction skills that will enable them to produce a broad range of print and digital publications.

- Getting to know the tools, panels, and workspaces.
- Learning how to navigate and zoom in a document.
- Setting up master pages in a document.
- Building automatic page numbering and sections.
- Placing text and graphics on document pages.
- Working with typography, including tracking and kerning.
- Creating drop caps, rules, tabs, dot leaders and hanging indents.
- Developing paragraph, character and object styles.
- Placing text and graphics on document pages.
- Flowing, threading, and spell-checking text in text frames.
- Adding colour using swatches, gradients and tints.
- Frequently-used shortcuts and techniques.
- Placing, managing and editing linked graphics.
- Working with clipping paths and alpha channel masks.
- Exporting documents to PDF for commercial printing.
- Interacting InDesign with other adobe applications.

Suggested Reading: i) Adobe InDesign CC by Kelly Kordes Anton & Tina DeJarld. Publisher: Adobe Press, 17 December 2017, San Francisco.

Learning Outcomes: They will submit a complete hard copy of a newsletter design.

Semester-IV

Media Studies

The media studies concentration emphasizes both a theoretical understanding of the media and media production skills. The aim is to empower students to be critical users of the media, engaged citizens, and creative practitioners. Being mindful of an increasingly concentrated telecommunications and media environment, the students should acquire media literacy to examine, theorize and critique the media as a social, cultural, economic and political institution.

Course Description

- 1) Concept of “Media Text”
An introduction to the role of media in contemporary society, focusing on media’s influence on cultural, political and ideological processes.
- 2) Basic Characteristics of Print and Electronic Media

The ideal purpose of media is to provide information, education and entertainment. Social media is about sociology and psychology more than technology.
- 3) Television and Participatory Culture

The signs of television often work through a series of codes that are, like signs, usually socially constructed and, therefore, agreed upon by society as a whole. They convey meaning which derives from the shared cultural experience of their users.
- 4) Semiotics and Media

Semiotics is an attempt to create a science of the study of sign systems and their role in the construction and reconstruction of meaning in media texts. Semiotics concentrates primarily on the text itself and the signs and codes that are contained within it.
- 5) Genre Study and Media

Genre theory deals with the ways in which a work may be considered to belong to a class of related works. The very use of the term “genre” implies that works of literature, films and television programmes can be categorized; whereas the aesthetic approach includes attempts to assess whether an individual work fulfils or transcends its genre.

Course Methodology

Class sessions will consist of lectures, demonstration, critiques, video/DVD viewing, and discussions.

Learning Outcomes

After completing this course, students will be able to:

1. have an increased knowledge of entertainment media theory;
2. understand interrelationships of moving image sound and picture in a theoretical context;
3. apply entertainment media theory to their own audio-visual productions.

Suggested Reading

- Mass Media and Society, James Curran and Michael Gurevitch, 4th ed, Bloomsbury.
- Television Studies: The Basics, Toby Miller, Routledge, London.
- Semiotics and the Analysis of Film, Jean Mitry, Athlone Press, London, 2000.
- Genre, Steve Neale, British Film Institute, London, 1980.
- “The Death of the Author”, Roland Barthes, in Image Music Text, Fontana Press, 1993.

Subject: Production Process: Stop Motion Animation

Semester-IV

Subject Code : MM4402C

Hours/Week-6

Credit-6

Learning Objects: To understand the space, composition, action, interaction and setting for Characters

Unit 1

- Creating the space for animated characters to act in; visual storytelling, introduction to perspective; creating the illusion of 3D space, incorporating perspective into the design of all manner of environments
- Landscape and interior design
- Basic lighting concepts, using value and colour to direct the eye
- Survey of film styles
- Introduction to technical drawing for animation; animation fundamentals including posing, staging,
- Action Analysis: Understanding animation from the masters. Tracing and retiming the keyframes and in-betweens of existing sequences

Unit 2

- Practice sequences for animation layout using the extreme poses and timing accordingly
- Animation layout: layout from storyboards, correcting storyboards
- Background layout with respect to the narrative. Focus on lighting and composition.
- Render environments using perspective;
- Guide the audience's eye using shapes, light, and value
- Classical layout techniques: Concepts of layering, overlay, underlay, field guide, registration etc.
- Understanding x-sheet for layout

Suggested Reading

Dream Worlds: Production Design for Animation By [Hans P HYPERLINK](#)
["http://www.infibeam.com/Books/search?author=Hans%20P%20Bacher"](http://www.infibeam.com/Books/search?author=Hans%20P%20Bacher)Bacher

Animated 'Worlds' (Paperback) by [Suzanne Buchan](#) (Editor), [David HYPERLINK](#)
["http://www.infibeam.com/Books/search?author=David%20Surman"](http://www.infibeam.com/Books/search?author=David%20Surman) Surman (Editor), [Paul Ward](#) (Editor)

Subject: Advanced 2D Animation-II- Facial Expression
Subject Code :MM4403C

Semester-IV
Hours/Week-6
Credit-6

Learning Objective: Main objective of training for this area is to give detail idea about facial animation ,acting, and learning elemental magic.

Unit-1

Lip-Sync.

Understanding different human lip gestures during speaking – lip chart- lip with expression –breaking dialogue track for lip-sync- writing exposure sheet- Lip animation.

Unit-2

Special Effect Animation

Rain- wind- snow- fire- smoke.

Unit-3

Morphing

Organic and Inorganic objects morphing procedure

Suggested Books:

- Timing For Animation by Whitaker, Elsevier (2009)
- The Animator's Survival Kit expanded edition by Richard E. Williams, Faber; Main - Revised edition (5 November 2009)

Subject: Introduction to 3D -Modelling and Texturing
Subject Code : MM4404C

Semester-IV
Hours/Week-6
Credit-6

Learning Objective: With 23 million lines of code is extraordinary powerful 3D Animation software. Last almost a decade **MAYA**is rolling the world of Animation film, Computer Game and Feature Films. Students get the enormous opportunity to get the technical tools they need to do whatever they want to do in 3D.

Unit-1

Lowpoly character and set modeling – Human (Male/Female) Modeling – Quadruped modeling.

Unit-2

Blend shapes

Unit-3

Shades

Introduction to shade and Texture- Using the Hyper shade- Applying Textures to model and characters- Photoshop Shadders- Bump mapping.

Unit-4

UV Mapping

Introduction to UV's- Planar Maps- Advanced UV's Tools- Automatic Maps-Spherical maps- Cylindrical maps-unfold, Relax Moving and sewing UV's.

Extensive studio Practice to understand the Basic of 3D and representation of different forms. At least three assignments (2 in studio and 1 from home).

Semester-V

Subject: Advanced 3D -Rigging and Animation
Subject Code : MM4501C

Semester-V
Hours/Week-6
Credit-6

Learning Objective: Students will learn how to make joints and controllers and how to create SKELETONS, which will behave predicatively in MAYA (Focus of these rigging classes). Various properties and aspects of many lights within MAYA, also the importance of shadows and creating realistic atmosphere. Finally Students will learn to apply the basic principles of animation, to create characters, which have both dynamic movement and weight.

Unit-1

Introduction to Rigging

Building the skeleton-understanding JOINTS-Forward and Inverse Kinematics- Constraints- They make a character's eye follow an object, a hand pick up glass, Skinning- Binding a character of the Rig- Local Rotation, Axis Controllers, Set Driven Key, Blend Shapes.

Unit-2

Intermediate Rigging

Reverse Foot-Spline-IKFK Switch- Advanced Blend Shapes.

Unit-3

Animation

Key frames- Bouncing a ball (Squash and Stretch) - Walk Cycle- Creating animation reference materials- The Graph Editor - Posing a character- Keys- Extremes and In between- The Graph editor in-depth.

Unit – 4

Acting for Animators

- Character lifting a heavy object (with purpose!)
- Hammering a nail
- Character juggling (loop)
- Starting to say something but unsure of how
- Standing up (from the ground)
- Pressing an elevator button and waiting for it

Suggested Study materials:

- The Animator's Survival Kit by Richard E. Williams, Publisher: Farrar, Straus & Giroux Inc, New York, United States, 2012
- 3D Animation Essentials 1st Edition by Andy Beane, Publisher: Sybex; 1 edition (March 6, 2012), Indianapolis, Indiana

Learning Objective: Student will learn how to composite and add graphics in Film footages. They will also learn advanced Visual and Special Effects and composite a scene.

Unit-1

Introduction to video compositing- Introduction to Motion graphics- video formats and its uses- introduction to Adobe After Effects – Understanding the workspace- Importing footages- Preparing footages for compositing- Basic 2D and 3D compositing.

Unit-2

2D Compositing Animating images and Text- Logo Animation –Painting- Rotoscopy- Masking- Filters.

Unit-3

Keying- Details of Green screen and blue screen footage compositing and their set up – Color correction – 2D Tracking – Image Stabilization- Morphing- Use of lights and Camera-Null objects.

Unit-4

3D Compositing-Importing camera and Tracking information-3D post filters- Apply various types of effects on a HD footage

Unit-5

Using Expressions - Rendering Attributes- Codec's- Video Standards- Batch rendering.

Suggested Study materials:

- The VES Handbook of Visual Effects: **Industry Standard VFX Practices and Procedures** by Jeffrey A. Okun and Susan Zwerman, Focal Press published by Elsevier Inc 2014.
- Motion Graphic Design Applied History and Aesthetics by Jon Krasner, Focal Press published by Elsevier Inc
- **Adobe After Effects CC Classroom in a Book (2018 release)** 1st Edition by Lisa Fridsma and Brie Gynculd, Adobe Press 2017
- **After Effects Apprentice: Real-World Skills for the Aspiring Motion Graphics Artist (Apprentice Series)** 4th Edition by Chris Meyer (Author), Trish Meyer (Author), Publisher: Routledge; 4 edition (February 19, 2016)

Subject: Audio: Dubbing
Subject Code : MM4503C

Semester-V
Hours/Week-6
Credit-6

Learning Objective: Students will learn further aspects of digital audio recording, post production, mixing and mastering. They will acquire the basic skills of audio production in different scenarios.

Students will learn further aspects of digital audio recording, post production, mixing and mastering. They will acquire the basic skills of audio production in different scenarios.

Theory:

- *Differences between analog and digital audio recording and reproduction chain.
- * Digital conversion of sound: Theory, process and application.
- * Audio post-production in fiction and non-fiction.
- * Detailed analysis of sound design of a chosen and pre-approved piece of media.

Practical:

- *Dubbing.
- *Foley recording.
- *Track-laying
- *Using effects and Mixing.
- * Designing sound for a chosen piece of video.

Bibliography:

- Kerner, Marvin M. *The Art of the Sound Effects Editor*. Focal Press. 1989.
- Francis Rumsey and Tim McCormick. *Sound and Recording*, Focal Press, Sixth Edition. 2009.
- Kenny, Tom. *Sound for picture, the art of sound design for film and tv (mix pro audio series)* Artistpro. 2000.
- Watkinson, John. *An Introduction to Digital Audio*, Focal Press, 2002.
- Everest, [F. Alton](#), and [Ken C Pohlmann](#). *Master Handbook of Acoustics*. The McGraw-Hill Companies. 2009.

Subject: Applied Art & Comics
Subject Code : MM4504C

Semester-V
Hours/Week-6

Credit-6

Learning Objective: A thorough understanding of graphic design as well as graphic narration/comics with typography, illustration etc.

Unit-1

- Understanding of typography and visual for applied art.
- Panel, gutter, illustration and the relationship of text with image in comics. Comics in social culture. The vocabularies of comics.
- Narration through sequential art. Documentation and information through comics. Time frames.

Unit-2

- Ligne Claire and other bande dessinée franco-belge; Herge
- Manga comics; Osamu Tezuka
- Superhero comics; Frank Miller, Alen Moor
- Independent comics

Suggested books:

- McCloud, S(1994), Understanding comics, William Morrow Paperbacks.
- Will Eisner (1984), Comics and Sequential Art, W.W. Norton & Co Inc.
- Sousanis, Nick (2015), Unflattening, Harvard University Press.

1. Introduction to environment and basic concepts: Interrelated aspects of environmental studies;

Ecological footprint, carrying capacity, ecological imbalance, environmental degradation, sustainable development, environmental justice, Emission trading, media and environmental education.

2. Ecology and ecosystem – principles and services

Principles – structure and functions, Services – biogeochemical cycles. Biodiversity and Wildlife, present scenario, importance of biodiversity, wetlands and biodiversity; threats and impacts of biodiversity loss; Conservation measures, UN Initiatives. GMO-advantages and disadvantages.

3. Global environmental issues

Global warming and climate change, Acid rain, PC smog, Ozone depletion and remedial measures. Types and sources of air pollutants; emission and air quality standards, PUC, air pollution control, Case studies. Modern environmental threats (nuclear warfare, biological warfare, e wastes and impacts of modern agricultural practices).

4. Environmental Policies and Legislations

Constitutional provisions, *Panchayat* Initiatives; **Environmental Policies and Strategies:** international organizations; International and national policy initiatives. **Important Environmental Legislations with special reference to Environmental Protection Act (1986)** and case studies.

5. Environmental Impact Assessment (EIA) and EMS Environmental Management:

Environmental audit; ISO standards, QMS and EMS; Environmental Labeling; Trade and environment; emission trading and carbon credits; carbon sequestration, Carbon capture and storage. Ecotourism and heritage management. Major Environmental Movements.

REFERENCES

1. **Basu, R.N**, Environment, University of Calcutta, 2000.
2. **Misra, SP and Pande, SN**, Essential Environmental Studies (3rd Edition), Ane Books Pvt. Ltd., 2011.
3. **Ghosh Roy, MK**, Sustainable Development (Environment, Energy and Water Resources), Ane Books Pvt. Ltd., 2011.
4. **Eldon Enger and Bradley Smith**, Environmental Science: A Study of Interrelationships, Publisher: McGraw-Hill Higher Education; 12th edition, 2010.
5. **Agrawal, KM, Sikdar, PK and Deb, SC**, A Text book of Environment, Macmillan Publication, 2002.
6. **Richard T Wright**, Environmental Science: Towards a Sustainable Future, Prentice-Hall Inc., 2008.
7. **Mitra, A.K, Bhattacharya, S. and Saha, D**, Environmental Studies, St. Xavier's College, Kolkata.
8. **Daniel D. Chiras**, Environmental Science: Creating a Sustainable Future, Jones & Bartlett Publishers; 6th edition, 2001.
9. **Odum, E.P**, Fundamentals of Ecology.
10. **Howard S. Peavy and Donald R. Rowe**, Environmental Engineering, McGraw-Hill International Editions, 1985.
11. **Metcalf & Eddy**, Wastewater Engineering, Tata McGraw-Hill Edition, 1999.
12. **Karpagam, M and Geetha Jaikumar**, Green Management, Theory and Applications, Ane Books Pvt. Ltd., 2010.
13. **Bala Krishnamoorthy**, Environmental Management, PHI learning PVT Ltd, 2012.

Semester-VI

Subject: Art History
Subject Code: MM4601C

Semester-VI
Hours/Week-6
Credit-6

Learning Objective: Learning objects: To know what Art History is, how, and where did it originate, and how have its methods changed over time. To Understand relationship between art and the society, to know the timeline and its characteristics and features.

Unit-1 Story, meaning and interpretation of Art.

Unit-2 An introduction to the study of Renaissance art, Art and Society, Use of light in different art movements

Unit-3 Construction and deconstruction, Use of sign and symbols in art

Unit-4 Modern and Post Modern Art movements

Unit-5 Art and artists in cinema and new kind of reading in art history.

Outcome: Development of understanding the art objects within the frame of history along with the timeline and to know how to read the visuals from multifarious perspective.

Submission: written submission with visuals (1000 words)

Suggested Books.

- Art in Renaissance Italy, Evelyn Welch
- Art in Europe 1700-1830, Matthew Craske
- Modern Art 1851-1929, Richard Brettell
- After Modern Art 1945-2000, David Hopkins
- The art of art history: A critical anthology, Donald Preziosi
- Art the whole story, Stephen Farthing, Thames and Hudson
- A history of Modern Art Arnason and Prather, Thames and Hudson
- World History of art. Hugh Honour and John Fleming, Lawrence King
- Ways of seeing, John Berger, BBC
- Understanding a Photograph, John Berger, BBC
- Woodcuts prints of nineteenth century Calcutta, Seagull, Edited by Ashit Paul
- Gardner's Art through the Ages, Wadsworth Publication
- Moving Focus, K.G.Subramanyan, seagull

Learning Objectives: This course will concentrate on the interplay of geometry and light, and discuss the physical reality, the computational models, and the application of cinematographic techniques in the digital domain. Students will develop the skills to use digital lighting for the purposes of storytelling and visual communication. They will also learn the mathematics and physics behind the simulation of light, texture, and form in computer graphics, and apply that knowledge by writing their own shaders. Students will be encouraged to explore a broad range of styles, from photorealistic, to painterly, to cartoon-style.

Unit-1

Lighting (Introduction to Lighting)

Introduction to basic 3-Point Lighting-Directional Light- Ambient Light- Spot Light- Depth Map Shadows-ray traced shadow – Mental Ray Lighting – Global Illumination – Final Gather - Photons.

Unit-2

Various Lighting Assignments – Interior and Exterior Lighting – Maya Mental Ray Tweaks.

Unit-3

Rendering - Hardware rendering – Wireframe rendering – Multi pass Rendering and compositing – Batch Rendering.

Suggested Study Materials:

- Maya Studio Projects Texturing and Lighting, Lee Lanier, John Wiley & Sons
- Mastering Autodesk Maya 2016 by Todd Palamar, Wiley & Sons, Inc., Indianapolis,
- Digital Lighting and Rendering by Jeremy Birn, New Riders; 3 edition (November 21, 2013)
- Aesthetic 3D Lighting: History, Theory, and Application 1st Edition by Lee Lanier
Publisher: Routledge; 1 edition (March 18, 2018)

Learning Objective: This course offers an advanced study of the development and practice of editing theory and style, including the practical impact on filmmaking. The course centers on an analysis of the evolution of editing aesthetics in the planning and visualization of moving pictures by the director in pre-production.

- Introduction and history of evolution of the specialized stream called editing, alongside of history of cinema. Basic theories that govern editing, time and space theory, continuity, look, angle, axis and elements that go in deciding an edit. Understanding importance of editing in the flow of a narrative. Pace and Rhythm in editing
- Editing theory: the long take (“sequence shot”) via Bazin’s writings.
- Editing theory: montage and rapid editing via Eisenstein’s and Metz’s writings.
- Theoretical analysis of case studies: CITIZEN KANE (stop-motion analytic technique taught and used), the long take.
- Theoretical analysis of case studies: POTEMKIN, rapid editing.
- Theoretical analysis of case studies: PULP FICTION, combination of editing techniques. Sound uses. Edit clips to illustrate these issues.
- A distinct television aesthetic? Long form, MOWs, series, news and documentaries, tv commercials.
- A distinct aesthetic of animation? Concept of pre-editing and animatic. Case studies of various animation filmmakers

Suggested Reading

1. Bazin, A. *What is Cinema?* Berkeley, University of California Press.
2. Eisenstein, S. *Film Form: Essays in Film Theory*. New York, Bruce & World.
3. Metz, C. *Film Language: A Semiotics of the Cinema*. Chicago, University of Chicago Press.
4. Thompson, Kristin and David Bordwell. *Film History: An Introduction*. New York: McGraw-Hill, 2009.
5. Eisenstein, Sergei. *Film Form: Essays in Film Theory*. San Diego: Harcourt Brace Jovanovich, 1977.

Learning Objectives :

Dynamics is a branch of physics that describes how objects move. Dynamic animation uses rules of physics to simulate natural forces. You specify the actions you want the object to take, then let the software figure out how to animate the object.

Dynamic animation lets you create realistic motion that's hard to achieve with traditional keyframe animation. For instance, you can make effects such as tumbling dice, waving flags, and exploding fireworks.

Unit-1

(Introduction to Particle)

Particles tool-create emitter-emit from object-Make Collide-Particle Collision Event Editor-Goal-Instancer (Replacement)-Sprite Wizard-Sprite Wizard-Hardware Rendering.

Unit-2

(Advanced Dynamics)

Different type of fields (Air, Drag, Gravity, Newton, Radial, Turbulence, Uniform, Vertex)- Active Rigid Body- Passive Rigid Body- Constraints (Nail, Pin, Hinge, Spring, Barrier)- Create Soft Body- Create Springs- Paint Soft Body Weight tool.

Unit-3

(MEL and Fluids)

Create 3D and 2D Container- Ocean and Pond- Make Collide- Initial State settings- Fluid Cache Settings. Intro to MEL (Maya Embedded Language) – Different types of Variables – Predefined and custom attributes.

Unit-4

nParticles (Advanced Particles)

Create nParticle- Types of nParticle (Points, Ball, Cloud, Thick Cloud, Water)- Particle collision event editor- Goal- Instancer (Replacement)- Sprite Wizard- nParticle attributes.

Unit-5

(nCloth)

Create nCloth- Create Passive Collider- nCloth caching- generate forces fields with nCloth.

Suggested Study Materials :

- Mastering Autodesk Maya 2016 by Todd Palamar, Wiley & Sons, Inc., Indianapolis,
- Maya Studio Projects: Game Environments and Props by Michael McKinley, Publisher: Sybex, 2010

Subject: ENV5 II
Subject Code : ES4502P

Semester-VI
Hours/Week-1
Credit-1

❖ **A. Project: A video for 3 Minutes Durations (25)**

1. Relevance of the topic = 05
2. Script, Creativity, Content = 10
3. Originality of data-photo = 05
4. Video/audio quality = 05

❖ **B. Various Activities (25)**

1. Individual Assignment (5)
2. Project presentation with an abstract (CIA) (5)
3. Industrial/Field visit (10)
4. Class Attendance (5)

Project topics

1. Biodiversity as wealth.
2. Oil spill and impact on modern environment.
3. Biosphere reserve and biodiversity protection.
4. Ozone – the good the bad.
5. Smog and ecology.
6. Acid rain.
7. Global warming – the realities.
8. Forest fires.
9. Tsunamis.
10. Nuclear power plants.
11. Renewable energy sources.
12. Environmental legislations – the important ones.
13. ISO standards – EMS
14. UN conventions and environment.
15. Green bench stories.
16. Carbon Credit – Environment income.
17. Wetlands in Bengal and Ramsar convention.
18. Protocols to protect environment.
19. Environmental movements in India.
20. Religion and environment.

Semester-VII

Subject: Drawing for Animation

Subject Code: AMM4701C

Semester-VII

Hours/Week- 6

Credit- 6

Learning Objective: An upgraded study of the development and practice of Drawing in deferent style, including the practical application of them. Here each student has to develop their own skill and style of drawing according to the practice and passion.

- ❖ History of drawing, alongside of history of Animation movies with respect to them (drawing).
- ❖ Advance understanding of anatomy, space, form and environment.
- ❖ A holistic understanding of the power of drawing in Animation
- ❖ Case studies of various animation filmmaker's drawings.

Learning Outcomes: Individual Portfolio of sequential drawing (Minimum 10 set of drawing)

Suggested Books:

- The Human Figure in Motion by Eadweard Muybridge Publisher: Dover Publications (June 1, 1955)
- Force the key capturing life through drawing by Michael D. Mattesi. Publisher: iUniverse Star (June 1, 2004)
- Vilppu Drawing Manual Spi Edition by Glenn Vilppu. Publisher: Vilppu Studio; Spi edition (February 28, 1997)
- The Artist's Complete Guide To Facial Expression by Gary Faigin. Publisher: Watson-Guptill (1 Nov. 2008) (1600)
- Figure Drawing For All It's Worth by Andrew Loomis. Publisher: Titan Books; Facsimile edition edition (May 31, 2011)
- The Animator's Sketchbook: How to See, Interpret & Draw Like a Master Animator 1st Edition by Tony White. Publisher: CRC Press; 1 edition (August 12, 2016)
- Drawn to Life: 20 Golden Years of Disney Master Classes: Volume 1: 1st Edition by Walt Stanchfield. Publisher: Focal Press (April 6, 2009)
- Gesture Drawing: A Story-Based Approach 1st Edition by April Connors. Publisher: CRC Press; 1 edition (September 25, 2017)
- Quick Sketching with Ron Husband Paperback – October 9, 2013 by Ron Husband. Publisher: Routledge; 1 edition (October 9, 2013)

Subject: Cultural Studies
Subject Code: MM4702C

Semester-VII
Hours/Week- 6
Credit- 6

Learning Objective: This paper explains the theory and practice of cultural studies with the help of detailed cultural analyses.

1. Cultural Studies: An Introduction
2. Understanding Cultural Studies
3. Evolution and Culture
4. Structuralism
5. Marxism
6. Post structuralism

Learning Outcomes: Students will be introduced to the theory and practice of cultural studies that will help them to understand that there is no real difference between studying ‘culture’ and studying society.

Suggested Readings:

Cultural Studies: An Introduction:

- i) Raymond Williams, Culture and Society: 1780 – 1950, Columbia University Press, 1983.
- ii) Mathew Arnold, Culture and Anarchy, SMK Books, 2009.

Understanding Cultural Studies:

- i) Gavin Kendall, Gary Wickham, understanding culture: Cultural Studies, Order, Ordering, Sage, 2001.

Evolution and Culture:

- i) Alex Mesoudi, Cultural Evolution: How Darwinian Theory can Explain Human Culture and Synthesize the Social Sciences, University of Chicago Press, 2011.
- ii) Robert Boyd and Peter J. Richerson, Culture and Evolutionary process, University of Chicago Press, 1985.

Structuralism:

- i) Ferdinand de Saussure, Course in General Linguistics, Columbia University Press, 2011.
- ii) Terence Hawkes, Structuralism and Semiotics, University of California Press, 1977.

Marxism:

- i) Raymond Williams, Marxism and Literature, Oxford University Press, 2010.
- ii) Karl Marx, Capital (Das Capital), Fingerprint Publishing, 2016.
- iii) Shlomo Avineri, The Social and Political Thought of Karl Marx, Cambridge University Press, 1968.

Poststructuralism:

- i) James Williams, Understanding Poststructuralism, Routledge, 2014.
- ii) David R. Howarth, Poststructuralism and After: Structure, Subjectivity and Power, Palgrave Macmillan U.K, 2013.

Subject: Acting and Choreography

Subject Code: AMM4703C

Semester-VII

Hours/Week- 6

Credit- 6

Learning Objective: In an animated film, there needs to be clarity of communication in order to tell the story effectively and engage the audience. As animators creating the performance, it is our job to draw the audience in, and build a performance that the audience can empathize with and be entertained by.

In order for the audience to empathize, they need to believe in the characters – they have to appear to live and think on their own, be spontaneously reacting, appealing and communicate clearly.

Here each student has to develop their own skill on appeal in composition, posing, rhythm and phrasing, and contain acting choices that feel fresh

❖ **SIMPLIFY**

Animators trying to wedge too much information into a shot, and it ends up feeling as clear as mud, and the realism of the performance suffers. Avoid the impulse to always be making the character move! The thing that really makes the shot flow well are the moments of stillness in juxtaposition to the movement.

❖ **ACTING WITHIN THE POSE**

Identify the character's emotional state of mind in the shot. Does this state change, and if so, determine the timing of the change. These emotional/mental states can and should be your character's only MAIN POSE CHANGES. Don't change poses simply because there is a new emphasis in the dialogue! Dialogue doesn't drive action on the part of the character, THOUGHT DRIVES ACTION.

❖ **LAYERING RHYTHMS IN THE PERFORMANCE**

The physical movements and the audio beats also need to dance around each other, and occasionally hit close together when emphasis is needed. Moments of stillness create punctuation in the performance.

❖ **EMOTIONAL HANG TIME**

The obvious example to describe this concept is with the good old' bouncing ball, when one force (bounce energy) runs out and another force (gravity) starts to take over, there is a moment of 'hang time', where we can see this changeover of forces occur.

❖ **THE NEUTRAL POSE**

NEVER start animating from 'T' pose. it makes the character feel incredibly generic and static. Identify your character's main traits, and create a 'neutral pose' for how the character, as an individual with a distinct personality, might stand or sit while they're just doing nothing. Work the performance with the character's emotions for the scene from there. We can capture the character's personality much more quickly and easily that way

❖ **MOVEMENT STYLE**

We can use specific inspiration to formulate our character's 'neutral pose', as well as the style of movement that will show the audience a lot about our character's personality. For example,

animal postures and behaviors can apply very well to certain character types, or another good example is a style of dance.

❖ **DYNAMIC FACIAL POSING**

We all know that a key element to creating dynamic body poses is the **LINE OF ACTION**. Other important lines are the shoulder lines and the hip lines. This opposition helps to emphasize the line of action, and make the pose feel active, rather than static.

❖ **ENGAGING THE BODY**

A big issue that we see often is limited parts of the body being used to create expressions. Something that we learned while doing film and theater acting was a concept called ‘engaging the body’. This works fantastically well for animation also.

❖ **EXAGGERATION**

If you want to make your animation more cartoony and over the top, give the poses **MORE CONTRAST** (ie: reverse the curves in the spine, exaggerate the **TY** weight shift, squash and stretch), and speed up the transition of the pose changes, and exaggerate the ‘smear’ in the dynamic breakdowns to help draw the viewers’ eye through the very quick transitions.

❖ **ANIMATE A CHARACTER’S THOUGHTS RATHER THAN THEIR WORDS**

We will get a lot more out of a performance if we can get inside the character’s head, and open up the door to let the audience in there as well. Animating directly to what a character’s dialogue is saying will usually give you a pretty one-dimensional performance, without much subtext.

Learning Outcomes: small acting sequence (minimum 11 seconds), small action sequence (minimum 5 seconds)

Suggested Books:

- Simplified Drawing for Planning Animation Paperback – August 1, 2014 by Wayne Gilbert. Publisher: Anamie Entertainment Ltd.; 4th edition (August 1, 2014)
- The Illusion of Life: Disney Animation Hardcover – October 5, 1995 by Frank Thomas and Ollie Johnston. Publisher: Disney Editions; Revised, Subsequent edition (October 19, 1995)
- The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators Paperback – September 25, 2012 by Richard Williams. Publisher: Farrar, Straus and Giroux; Fourth Edition, Revised edition (September 25, 2012)
- Timing for Animation, Second Edition 2nd Edition by John Halas OBE (Author), Harold Whitaker (Author), Tom Sito (Editor). Publisher: Focal Press; 2 edition (September 3, 2009)
- Producing Independent 2D Character Animation: Making & Selling A Short Film (Focal Press Visual Effects and Animation) by Mark A. Simon (Author). Publisher: Focal Press (February 26, 2003)
- Animation: The Mechanics of Motion 1st Edition by Chris Webster (Author). Publisher: Focal Press; 1 edition (July 26, 2005)
- Acting and Character Animation: The Art of Animated Films, Acting and Visualizing 1st Edition by Rolf Giesen, Anna Khan. Publisher: CRC Press; 1 edition (July 28, 2017)

Subject: Experimental Animation

Subject Code: AMM4704C

Semester-VII

Hours/Week- 6

Credit- 6

Learning Objective: This class will focus on the issues that have arisen with the advent of digital cinema. We will combine traditional and digital techniques to develop experimental animations. The animations — ones that we study and create — will be both figurative and abstract, but always experimental in that they will push the boundaries of representation and/or narrative structure. Students will also be encouraged to push the boundaries of their own creative expression in an attempt to explore non-discursive modes of articulation and communication.

In this class, participation will be considered almost as important as finished projects. This means active engagement in group projects and discussions, working to make critiques a helpful give and take of ideas on each other's' projects.

- ❖ Understanding the medium and the aesthetics of Experimental Animation.
- ❖ Apply techniques including animation of objects, cutout, silhouette, pixilation, clay, sand, water, rotoscoping etc. to produce animated films.
- ❖ Non-representative arts its application in animation film.
- ❖ Music with rhythm and tempo and discordant sounds in relationship to visual movement.
- ❖ Understanding of Drawn and Direct technique by Norman McLaren.

Learning Outcomes: The student is expected to come up with an Experimental Animation Film

Suggested Books:

- Norman McLaren: Between the Frames (Animation: Key Films/Filmmakers) by Nichola Dobson (Author), Chris Pallant (Series Editor) Publisher: Bloomsbury Academic (January 25, 2018)
- The Crafty Animator: Handmade, Craft-based Animation and Cultural Value (Palgrave Animation) 1st ed. 2019 Edition by Caroline Ruddell (Editor), Paul Ward (Editor) Publisher : Palgrave Macmillan; 1st ed. 2019 edition (June 8, 2019).
- Experimental and Expanded Animation: New Perspectives and Practices (Experimental Film and Artists' Moving Image) 1st ed. 2018 Edition by Vicky Smith (Editor), Nicky Hamlyn (Editor) Publisher: Palgrave Macmillan; 1st ed. 2018 edition (August 21, 2018)
- Experimental Animation: From Analogue to Digital 1st Edition by Miriam Harris (Editor), Lilly Husbands (Editor), Paul Taberham (Editor) Publisher: Routledge; 1 edition (February 14, 2019)

Semester-VIII

**Subject: Story development & Screenwriting
For animation
Subject Code: AMM4801C**

**Semester-VIII
Hours/Week- 6
Credit- 6**

Learning Objective: This course offers an advanced study of the development and practice of screenwriting and style in Animation filmmaking. The course centres on an analysis of the evolution of screenwriting aesthetics in the planning and visualization of moving pictures by the director in pre-production

- Introduction and history of evolution of the specialized stream called screenwriting, alongside of history of cinema. Basic theories that govern screenwriting. Understanding importance of screenwriting in the flow of a narrative. Pace and Rhythm in screenwriting.
- Screenwriting theory: the screenwriting of Walt Disney, Hayao Miyazaki, Henry Selick , Pixar, DreamWorks, Warner Bros etc.
- Theoretical analysis of case studies: Lion King, Water ship down,
- Screenwriting for TV series, news and documentaries, TV commercials.

Learning Outcomes:

Suggested Books:

- Animation Writing and Development, : From Script Development to Pitch (Focal Press Visual Effects And Animation) 1st Edition by Jean Ann Wright (Author). Publisher: Focal Press; 1 edition (February 7, 2005)
- Ideas for the Animated Short, Second Edition: Finding and Building Stories 2nd Edition by Karen Sullivan (Author), Gary Schumer (Author). Publisher: Focal Press; 2 edition (November 19, 2012)
- Write Your Way into Animation and Games: Create a Writing Career in Animation and Games 1st Edition by Christy Marx (Editor). Publisher: Focal Press; 1 edition (March 18, 2010)
- Blueprint for Screenwriting: A Complete Writer's Guide to Story Structure and Character Development 1st Edition, Kindle Edition by Rachel Ballon (Author). Publisher: Routledge; 1 edition (April 4, 2014)
- Exploring Visual Storytelling (Design Concepts) 1st Edition by Brian Arnold (Author), Brendan Eddy (Author). Publisher: Cengage Learning; 1 edition (June 5, 2007)

**Subject: Adv. Character construction: Portraiture,
Caricature, Hybrid 2D/3D**
Subject Code: AMM4802C

Semester-VIII
Hours/Week- 6
Credit- 6

Learning Objective: Character construction for Animation: Human and Animal Anatomy: from, structure and analysis, Advanced Character Construction: Portraiture and Caricature, Facial Expression.

An upgraded study of the development and practice of Drawing in deferent style, including the 3D/2D practical application of them. Here each student has to develop their own skill and style of drawing according to the practice and passion.

- ❖ History of drawing, alongside of history of Animation movies with respect to them (drawing).
- ❖ Advance understanding of anatomy, space, form and environment.
- ❖ Advanced study of 3D/2D character construction and expression chart.

Learning Outcomes: The student is expected to come up with a character design and expression 2D/3D.

Suggested Books:

- Force: Character Design from Life Drawing (Force Drawing Series) 1st Edition by Mike Mattesi (Author) Publisher: CRC Press; 1 edition (May 10, 2008)
- Bridgman's Complete Guide to Drawing From Life Fifth Edition by George B. Bridgman (Author) Publisher: Sterling; Fifth edition (November 7, 2017)
- The Art of Caricaturing Paperback – February 21, 2012 by Mitchell Smith (Author), Maggie Mack (Author) Publisher: CreateSpace Independent Publishing Platform (February 21, 2012)
- Anatomy for 3D Artists: The Essential Guide for CG Professionals by Chris Legaspi. Publisher: 3DTotal Publishing (December 15, 2015)
- Sculpting from the Imagination: ZBrush (Sketching from the Imagination) by 3D total publishing (May 24, 2016)
- ZBrush Character Sculpting by Rafael Grassetti. Publisher: 3dtotal Publishing; 1st edition (April 17, 2012)
- Character Design From the Ground Up by Kevin Crossley. Publisher: Ilex Press (October 6, 2014)
- Creating Characters with Personality: For Film, TV, Animation, Video Games, and Graphic Novels by Tom Bancroft. Publisher: Watson-Guption; 1 edition (February 1, 2006)
- Creative Character Design 2e by Bryan Tillman. Publisher: CRC Press; 2 edition (February 12, 2019)
- Creating Stylized Characters by 3DTotal Publishing (July 10, 2018)
- The Silver Way: Techniques, Tips, and Tutorials for Effective Character Design by Stephen Silver. Publisher: Design Studio Press (April 7, 2017)
- The Art of Animal Character Design, Second Edition by David Colman. Publisher: David's Doodles (2014)
- Designing Creatures and Characters: How to Build an Artist's Portfolio for Video Games, Film, Animation and More by Marc Taro Holmes. Publisher: North Light Books (October 12, 2016)

Subject: Layout and Asset Design

Subject Code: AMM4803C

Semester-VIII

Hours/Week- 6

Credit- 6

Learning Objective: Layout is a breakdown of 2D storyboards into 2D or 3D shots. Students has to use production designs and models as reference to build locations and major props, to block in the position of characters, to select camera angles and to plot camera moves.

- ❖ Student has to ensure that everything that is going to be animated is set up properly, including not only characters, but also any props or parts of the background that need to move.
- ❖ Comprehensive study of different art style of animated movie.

Learning Outcomes: The student is expected to come up with a short layout walkthrough animation 2D or 3D. (Minimum 1 minute).

Suggested Books:

- Animation - The Art of Layout and Storyboarding Paperback – November 18, 1999 by Mark Byrne (Illustrator). Publisher: Imprint unknown; First Edition edition (November 18, 1999)
- Setting the Scene: The Art & Evolution of Animation Layout by Fraser Maclean. Publisher: Chronicle Books (November 16, 2011)
- The Noble Approach: Maurice Noble and the Zen of Animation Design Hardcover – October 1, 2013 by Tod Polson (Author), Chuck Jones (Preface), Maurice Noble (Foreword) Publisher: Chronicle Books (October 1, 2013)
- Modeling the Environment: Techniques and Tools for the 3D Illustration of Dynamic Landscapes 1st Edition by Bradley Cantrell (Author), Natalie Yates (Author). Publisher: Wiley; 1 edition (March 27, 2012)
- 2D Artwork and 3D modeling for game artist by David Franson & Andre Lamothe. Publisher: Premier Press; 1st edition (November 27, 2002)
- Construction drawing and details for interiors by W. Oti Kilmer and Rosemary Kilmer. Publisher: Wiley; 3 edition (February 15, 2016)
- Dream Worlds: Production Design for Animation by Hans Bacher and Don Hahn. Publisher: Routledge (November 23, 2007)
- 3D Game Environments: Create Professional 3D Game Worlds 1st and 2nd Edition by Luke Ahearn. Publisher: Routledge (November 23, 2007)
- Maya Studio Projects: Game Environments and Props by Michael McKinley, Publisher: Sybex, 2010

Learning Objective: This course focuses on the different professional aspects of the computer graphics in Character Animation. In this course students will practice, present and discuss their own work with other students in a supportive environment. There will be Practical project based classes.

- ❖ Hybrid animals and its movements.
- ❖ Stylized and detail acting.
- ❖ Facial Expression and Dialogue.
- ❖ Using live shoot for animation.
- ❖ Make your own complex character and animate that.

Learning Outcomes: small animation sequence using 2D/3D digital platform (Minimum 15 second).

Suggested Books:

- Comedy for Animators by Jonathan Lyons (2016-01-18). Publisher: Focal Press (1788)
- Physics for Animators by Michele Bousquet (2015-12-20) Paperback – 1706. Publisher: Focal Press (1706)
- Digital Animation 1 &2 by Andrew Chong. Publisher: Bloomsbury Visual Arts; 1 edition (January 10, 2019)
- Hybrid Animation Integrating 2D and 3D Assets by Tina O’Hailey. Publisher: Focal Press (1708)
- Thinking-Animation Bridging the Gap Between 2D and CG by Angie Jones and Jamie Oliff. Publisher: Cengage Learning PTR; 1 edition (June 16, 2006)
- Animation from Pencils to Pixels: Classical Techniques for the Digital Animator 1st Edition by Tony White. Publisher: Cengage Learning PTR; 1 edition (June 16, 2006)

Subject: Research and choosing of the topic for thesis Semester-VIII
Subject Code: AMM4904D

Learning Objective: Students are to choose a topic for their dissertation

The student are expected to come up with a short dissertation accompanied with images and explorations pertaining to Individual dissertation Project.

Expected Output: A short dissertation of about 5000 words explaining:

- ❖ The identified problem area
- ❖ Reasons behind the chosen area of interest and how it might be relevant to the understanding of the broader discipline of visual communication
- ❖ Documentation of the research process
- ❖ The reasons behind the dissertation being relevant and beneficial to the MMM department and future students
- ❖ Research bibliography with citations
- ❖ Students are supposed to submit three copy of the completed project.

Semester-IX

Subject: Cultural Studies II
Subject Code: MM4901C

Semester-IX
Hours/Week- 6
Credit- 6

Learning Objective: This paper focuses on different subjects that help to get a better grasp in understanding culture.

1. Subjectivity
2. Identity
3. Ideology
4. Representation
5. Power
6. Discourse
7. Gender

Learning Outcomes: Students will realize that culture creates and transforms individual experiences, social relations and power.

Suggested Readings:

Subjectivity:

- i) Donald E. Hall, *Subjectivity*, Routledge, 2004
- ii) Jean-Paul Sartre, *What is subjectivity?*, Verso, 2016

Identity:

- i) Kath Woodward, *Questioning Identity: Gender, Class, Nation*, Routledge, 2004.
- ii) Francis Fukuyama, *Identity: The demand for Dignity and the Politics of Resentment*, Farrar, Straus and Giroux, 2018

Ideology:

- i) Louis Althusser, *On the Reproduction of Capitalism: Ideology and Ideological State Apparatuses*, Verso, 2014.
- ii) Terry Eagleton, *Ideology: An Introduction*, Verso, 2007.

Representation:

- i) Stuart Hall, Jessica Evans and Sean Nixon, *Representation: Cultural Representations and Signifying Practices*, Sage Publication, 2013.
- ii) Hanna F. Pitkin, *The Concept of Representation*, University of California Press, 1967.

Power:

- i) Michel Foucault, *The Subject and Power*, *Critical Inquiry*, (Volume-8, No. -iv, PP 777-795), 1982.
- ii) John Storey, *Culture and Power in Cultural Studies*, Edinburgh University Press, 2010.

Discourse:

- i) Alec McHoul and Wendy Grace, *A Foucault Primer: Discourse, Power and The Subject*, New York University Press, 1997.
- ii) James Paul Gee, *An Introduction to Discourse Analyses: Theory and Method*, Routledge, 2014

Gender:

- i) Annette Burfoot, *Visual Culture and Gender: Critical Concepts in Media and Cultural Studies*, (Volume – iv), Routledge, 2015.
- ii) Bonnie Kime Scott, Susan E. Cayleff, Anne Donadey, Irene Lara, *Women in Culture: An Intersectional Anthology for Gender and Women’s Studies*, John Wiley and Sons, 2016.

Subject: Animation Studies: Contemporary Trends **Semester-IX**
Subject Code: AMM4802C **Hours/Week-6**
Credit- 6

Learning Objective: This course focuses on the creativity of making animation along with the analytical study of the history of Animation in modern times.

- ❖ Present scenario of Indian 3D Animation with respect to the world. The problem and power of Indian animation industry, a thorough understanding of the out-sourcing procedure.
- ❖ Animation in Indian Advertisements.
- ❖ The works of Hayao Miyazaki. His contribution to the world of animation.
- ❖ Animation/ Animator to read: Koneko no Rakugaki, Blinkerty Blank, Works of Norman McLaren, Tim Burton, Brad Bird, John Lasseter, The Simpson etc.
- ❖ Reading of US and European contemporary 3D animation, the impact on visual culture. Animations/Movies to Read: Shrek, Toy Story, Finding Nemo, Life of Pi, Jungle Book (2016) etc.

Learning Outcomes: To understand the creative, artistic, social and technical aspects of animation making around the world.

Suggested Books:

- Animation Art (eBook): From Pencil to Pixel, the illustrated History of Cartoon, Anime & CGI (Illustrated Digital Editions) [Print Replica] Kindle Edition by Jerry Beck (Author, Editor) Publisher: Flame Tree Publishing (March 6, 2015)
- The Nine Old Men: Lessons, Techniques, and Inspiration from Disney's Great Animators by Andreas Deja. Publisher: Routledge; 1 edition (September 23, 2015)
- Animation: A World History: Volume III: Contemporary Times by Giannalberto Bendazzi. Publisher: Focal Press (2015-11-12) (1656)

Subject: Post Production Tools and Techniques
Subject Code: AMM4903C

Semester-IX
Hours/Week- 6
Credit- 6

Learning Objective: This course focuses on the different professional aspects of the postproduction tools and techniques of Animation. In this course, students will practice, present and discuss their own work with other students in a supportive environment. There will be Practical project based classes.

- ❖ Working with the developed ideas.
- ❖ Importance and Practice of Audio in Animation Design. Video editing.
- ❖ Complex Compositing. Understanding of frames with respect to create scenes and pace in-between.
- ❖ Understanding of different areas of post-production; the logical developments.
- ❖ Understanding the process of converting the pre-production elements to post-production to complete the film.
- ❖ Full rendering of a film. Different out puts.

Learning Outcomes: Understanding the postproduction pipeline through visual effects editing, audio mixing and rendering. Students have to submit a 2 minutes video using the above mentioned postproduction tools.

Suggested Books:

- The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures, by Susan Zwerman (Editor), Jeffrey A. Okun (Editor), Publisher: Routledge; 2 edition (13th August 2014)
- The Visual Effects Producer: Understanding the Art and Business of VFX by Charles Finance, Susan Zwerman, Publisher: Routledge; 1 edition (28th September 2009)
- The Heart of Art: A Glimpse into the Wondrous World of Special Effects Makeup and Fine Art of Akhito by Akihito Ikeda, Publisher: Titan Books Ltd (29th October 2014)
- Filming the Fantastic: A Guide to Visual Effects Cinematography by Mark Sawicki, Publisher: Routledge; 2 edition (12 September 2011)
- Industrial Light & Magic: Into the Digital Realm by Patricia Rose Duignan , Publisher: Del Rey (1 October 1996)

Subject: Final thesis
Subject Code: AMM4904D

Semester-IX
Hours/Week- 12
Credit- 12

The student is expected to come up with a short dissertation accompanied with images and explorations pertaining to Individual Project.

Expected Output: A short dissertation of about 5000 words explaining:

- ❖ The identified problem area
- ❖ Reasons behind the chosen area of interest and how it might be relevant to the understanding of the broader discipline of visual communication
- ❖ Documentation of the research process
- ❖ The reasons behind the dissertation being relevant and beneficial to the MMM department and future students
- ❖ Research bibliography with citations

Students have to submit three copy of the completed project

**Subject: 2D/3D Project Preproduction:
Sound design, Animatics**
Subject Code: AMM401PJ

Semester-IX

Learning Objective: This course focuses on the different professional aspects of the 2D and 3D Animation. In this course students will practice, present and discuss their own work with other students in a supportive environment.

- ❖ Idea Developing (A scratch to movie).
- ❖ Advance storyboard with dynamic action sequences.
- ❖ Animation Design.
- ❖ Background designing with creative understanding of environment and the understanding the identity for a film.
- ❖ Advanced character designing with relationships with environments
- ❖ Understanding shapes
- ❖ Research methodology.
- ❖ Creating Maquette for Visual Development & Design.

Learning Outcomes: The student is expected to come up with a complete Preproduction book for a film and finally creating animatic for an error free production.

Suggested Books:

- The Animator's Eye: Adding Life to Animation with Timing, Layout, Design, Color and Sound 1st Edition by Francis Glebas. Publisher: Focal Press; 1 edition (September 24, 2012)
- The Art of Pixar: 25th Anniv.: The Complete Color Scripts and Select Art from 25 Years of Animation by Amid Amidi Publisher: Chronicle Books; 1st Edition edition (November 2, 2011)
- Designing Sound for Animation 2nd Edition by Robin Beauchamp. Publisher: Focal Press; 2 edition (1707)
- Dream Worlds: Production Design for Animation 1st Edition by Hans Bacher. Publisher: Focal Press; F 1st Used edition edition (1707)

Semester-X

Subject: Individual Project: Production / Postproduction Semester- X
Subject Code: AMM401PJ Hours/Week- 12
Credit- 12

Project Brief: The students have to identify a specific research area within visual communication chiefly animation. It might also involve research into works of pioneers in various fields of visual communication, artists, and filmmakers. The student, in consultation with their respective guide should arrive at a final idea that puts forth their research and learning as a creative output.

Expected Outcome: The final output may be in the form of Fiction or non-fiction Animation film.

Students have to submit a copy of the completed project with documentation of the entire process to the departmental library.

Subject: Internship
Subject Code: AMM402IN

Semester- X
Hours/Week- 6
Credit- 6

Learning Objective: Main objective of professional practice is to make student acquainted with professional work environment.

- In professional practice, student may work in any production house as part timer or they can work as freelancer.
- At the end of the Semester Student should submit their profession output/ Report.

Reference Books :

Reference for Story Designing

- **The everything Creative Writing Book-** Carol Whiteley
- **The Complete Idiot's Guide to Creative Writing, 2nd Edition-** Laurie E. Rozakis.
- **The Art of Creative Notification: Writing and Selling the Literature of Reality (Wiley Book for Writers Series) –** Lee Gutki
- **Writer's Digest Writing Kit: Everything You Need to Get Creative, Start Writing and Get Published –** Writers Digest Book.

Reference for Photography

- **The Complete Kodak Book of Photography –** Jonathan Vince and Jack Tresidder.
- **The Basic Book of Photography, Fifth Edition-** Tom Grimm and Michele Grimm.
- **Amphotos Complete Book of Photography: How to Improve Your Pictures with a Film or Digital Camera-** Jenni Binder and Russ Burden.

Reference for Scripting for Media

- **Visual Storytelling: The art and Technique-** Tony Caputo, Jim Steranko, and Harlan Ellison.
- **The visual Story, Second Edition: creative the Visual Structure of Film, TV and Digital Media-** Bruce Block.
- **Graphic storytelling and Visual Narrative (Will Eisner Instructional Books) –** Will Eisner.
- **Cinematic storytelling: The Most Powerful Film Conventions Every Filmmake Must Know –** Jennifer Van Sijll (Paperback Aug 1, 2005)

- **The Complete Book of Scriptwriting-** Michael Straczynski
Cartoon
- **The Writer's Guide to Writing Your Screenplay : How to Write Great Screenplay for Movies and Television-** Cynthia Whitcomb

- **Animation: From script to Screen-** Shamus Culhane.

- **Animation Writing and Development: From Script Development to Pitch (Focal Press Visual Effects and Animation) –** Jean Ann Wright.
- **Story: Robert McKee**

Reference for Animation Fundamentals- Classical Animation –Advanced 2D Animation

- **Gardner’s Computer Graphic & Animation Dictionary-** Garth Gardner
- **Animation (Walt Disney Animation Studios: The Archieve Series)-** Ins. Disney Enterprises.
- **Beginner’s Guide to Animation: Everything You need to Know to Get Started-** Mary Murphy.
- **The Animators Survival Kit- Revised Edition: A manual of Methods, Principles and Formulas .for Classical, Computer, Games, Stop Motion and Internet Animators-** Richard Williams.
- **The Illusion of Life: Disney Animation-** Ollie Johnston and Frank Thomas.
- **Cartoon Animation (the Collector’s Series)-** Preston Blair
- **The Animation Book: A Complete Guide Animated Filmmaking- From Flip- Books to sound Cartoons to 3D Animation-** Kit Laybourne and John Canemaker.
- **Animation 1: Learn to Animate Cartoons Step by Step (Cartooning Book 1)-** Preston j. Blair
- **Force: Dynamic Life Drawing for Animators, Second Edition-** Mike Mattesti.
- **Drawn to Life: 20 Golden Years of Disney Master Classes: Volume 1: The Walt Stanchfield Lectures-** Walt Stanchfield and Don Hahn.
- **How write for Animation-** Jeffery Scott.
- **Timing for Animation, Second Edition-** Tom Sito (Paperback- Sep 3, 2009).
- **Animation from Pencil to Pixel: Classical Techniques for the Digital Animation-** Tony White (Kindle Edition- Aug 4, 2006)- Kindle Book.
- **Basic animation: Drawing for Animation-** Paul Wells, Joanna Quinn.

Reference for Film Studies

- **Film Language: A semiotics of the Cinema-** Christain Metz and Michael Taylor.
- **Grammer of Film Language-** Daniel Arijon.
- **Film Communication Theory and Practice in Teaching English as A Foreign Language-** David John Wood.
- **Teaching Analysis of Film Language-** David Wharton, Jeremy Grant and Vivienne Clark.
- **Film as Art- Rudolf Arnheim (Paper Back- Mar 6, 2006)-** Deluxe Edition
- **Film Direction Shot by Shot: Visualizing from Concept to Screen (Michael Wiese Production)-** Steve Katz.
- **How to read a Film: James Monaco**
- **The Oxford History of World Cinema: Edited by Geoffrey Nowell-Smith**
- **Jump Cuts and Blind Spots: David Bordwell**

Reference for Storyboarding & Animatics

- **Exploring Storyboarding (design Exploration Series)-** Wendy Tumminello.
- **Storyboard Design Course: Principles, Practice, and Techniques-** Giuseppe Cristiono.
- **Prepare to Board! Creating story and Characters for animated Features and Shorts-** Nancy Beiman.
- **The Art of the storyboard, Second Edition: A filmmaker's introduction-** John Hart.
- **Storyboards: Motion in Art, Third Edition-** Mark A. Simon.

Reference for Character Design

- **Creating Characters with Personality: For Film, TV Animation, Video Games, and Graphic Novels-** Tom Bancroft and Glen Keane (Paperback- Feb 1, 2006).
- **Character Animation: 2D skills for Better 3D, Second Edition (Focal Press Visual Effects and Animation)-** Steve Roberts (Kindle Edition- May 4, 2007)- Kindle Book
- **Gardner's storyboard Sketchbook: story Planning and Character design Workbook (Gardner's Guide Series)-** Garth Gardner.
- **Character Costume Figure Drawing: Step-by-Step Drawing Methods for Theatre Costume Designers-** Tan Huaixiang (Paperback- May 4, 2004)

Reference for Layout Design

- **Animation Background Layout: From student to Professional-** Mike S. Fowler.
- **How to Make Animated Films: Tony White's Complete Masterclass on the Traditional Principles of Animation-** Tony White

Reference for Stop Motion Animation

- **A century of Stop-Motion Animation: From Melies to Aardman-** Ray Harryhausen and Tony Dalton.
- **The Art of Stop-Motion Animation-** Ken A. Priebe
- **Basic Animation: Stop Motion-** Barry Purves

Reference for Music and Sound Effect

- **Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema-** David Sonnenschein
- **Sound and Music for the Theatre, Third Edition: The Art & Technique of Design-** Deena Kaye and James LeBrecht.

Reference for Visual and Sound Editing

- **Editing Digital Video: The Complete creative and Technical Guide-** Rober M. Goodman and Patrick McGrath.

Reference for 3D (Maya)

- **Stop Staring: Facial Modeling and Animation Done Right-** Jason Osipa.
- **Learning Autodesk Maya 2009, The modeling and Animation Handbook: Official Autodesk Training Guide-** Autodesk Maya Press.
- **Maya Professional Tips and Techniques-** Lee Lanier.
- **Advanced Maya Texturing and Lighting-** Lee Lanier.
- **Maya Visual Effects: The Innovator's Guide-** Eric Keller
- **Mastering Maya 2009-** Eric Keller, Eric Allen and Anthony Honn.

Reference for Digital Imagery

- **Adobe Photoshop CS4 classroom in a book-** Adobe Press.
- **The Photoshop Book for Digital Photographers-** Scott Kelby
- **Layers: The complete Guide to Photoshop's Most Powerful Feature-** Matt Kloskowski.

Reference for 2D Animation by Flash

- **Adobe Flash CS4 Professionals- Classroom in a Book-** Adobe Creative Team
- **Adobe Flash CS3 Professionals- Hundred Essential Techniques-** Mark Schaeffer.

Reference for Drawing the Key Tool/ Visual Literacy/ Graphic Design

- **Consize History of Art-** Harbart Reed
- **Pictorial Websters' "A Visual Dictionary of Curiosities"-** Jhon M.Carrera.
- **An illustrated Life: Drawing Inspirations from the Private Sketch Books of Artists, Illustrators and Designers –**Danny Gregory.
- **Art: A world History-** Elke Linda Buchholz, Susanne Kaeppele, Karoline Hille and Irina Stotland.
- **How to read a Film: Movies, Media, Multimedia-** James Monaco.
- **Our Films and Their Films-** Satyajit Ray.
- **The Animation Book: A Complete Guide to animated film making- From Flipbooks to sound Cartoons to 3D Animation-** Kit Laybourne, John Canemarker.

Human Anatomy study

- **Anatomy and Drawing: Victor Perard**
- **Constructive Anatomy: George B. Bridgman**

Art history and Practice

- **Ways of Seeing: John Berger**
- **History of Art: H.W.Janson & Anthony F. Janson**
- **Oxford History of Art, Indian Art: Partha Mitter**

1) Ways of Seeing – John Berger

- 2) Illumination – Walter Benjamin
- 3) Meaning of Art – Herbert Read
- 4) Concise history of Modern Painting - Herbert Read
- 5) Grammar of the Film Language – Daniel Arizon
- 6) Our Films Their Films – Satyajit Ray
- 7)The Creative Circuit – K.G. Subramanyan