AJK Mass Communication Research Centre

Jamia Millia Islamia

New Delhi-110025

SYLLABUS

Semesters 1 & 3

M.A. in Visual Effects and Animation (2025-27)

Credits Distribution for M.A. Visual Effects & Animation - Semester- I

(4 Core Papers and 1 CBCS Paper)

Paper No.	Subject	Internal Marks Theory (IAT)	Univ. Exam Marks Theory (UET)	Internal Marks Practical (IAP)	Univ. Exam Marks Practical (UEP)	Total Marks	Credits Theory + Practical	Credits Total	Hours Theory + Practical	Hours Total
MGN101	Visual Communication	40	60	50	50	200	3+3	6	3+6	9
MGN102	Animation Processes	40	60	-------	-------	100	3+3	6	3+6	9
MGN103	3D Modelling	40	60	-------	-------	100	2+2	4	2+4	6
MGN104	Film Making	40	60	-------	-------	100	2+2	4	2+4	6
CBT101	CBCS	40	60	-------	-------	100	3+0	4	3+0	3
						600	TOTAL= 24 Credits		TOTAL= 33 Hours	

SEMESTER I

Visual Communication

Course Description

Visual Communication enables the conveyance of information or ideas through images. This course will involve study of the principles of Visual Communication, exploring topics like the fundamentals of design and color theory so that students learn to visualize and clearly transmit their ideas. They will then further their study to the principles that govern composition in a moving image. Finally, they will be exposed to principal movements in Art from India, the Far East and the Western traditions with emphasis on the figure and background.

Objectives

The main objective of this course is to sensitize the students about the basic principles and theory of visual communication so that they develop their observational and conceptualization skills.

The goal of the course is to develop through experience, by trial and error, the student's visual imagination and understanding. This course creates the basic foundation of animation: sketches and drawings for 2D and 3D animation, which is a must for creating characters/creatures and an essential skill required for storyboarding.

Unit 1: Principles of Design, Composition and Color Theory
Unit 2: Drawing
Unit 3: Art History

Relevant Readings: (These are the types of readings that could help students in this course. But individual instructors will provide more detailed readings as part of the teaching plan.)

1. The Meaning of Art by Herbert Read, Faber & Faber February 1984.
2. Visual Communication by Paul Martin, Global Vision Publishing House, 2009.
3. Universal Principles of Design, Revised and Updated by William Lidwell, 2010.
4. Visual Communication and Graphical Form, by Havi Murungi, LAP Lambert Academic Publishing, 2012.
5. Color Design Workbook: A Real-World Guide to Using Color in Graphic Design, Adams Morioka, 2008.
6. Geometry of Design: Studies in Proportion and Composition 2001 by Kimberly Elam
7. Indian Art (Oxford History of Art) Paperback – 25 May 2001by Parthe Mitter.
8. What is Art? (Penguin Classics) Paperback – 31 Aug 1995, by Leo Tolstoy.
9. Introductory Lectures on Aesthetics (Penguin Classics) Paperback – 27 May 1993 by Georg Hegel.
10. The Story of Art by E.H. Gombrich, 2008.
11. Ways of Seeing by John Berger, 2008.
12. Color: A Natural History of the Palette by Victoria Finlay, 2004.

Animation Processes

Course Description

This course is designed to give students a greater understanding of past and current trends in animation vis-a-vis the social milieu in which the work was created and how it relates to the history of film and television. Students will learn the principles of animation that were created in the early 1930s by animators at the Walt Disney Studios. These twelve principles became the foundations of hand-drawn cartoon character animation.
Students will do various exercises based upon these principles and learn how to perform for animation.

Objectives

To sensitize the student about the principles of animation. Students will learn about the history of animation and be introduced to several terms related to the industry. At the end of this course they will acquire a broader knowledge and perspective about the global animation business.

Unit 1: History of film and animation
Unit 2: Differentiating between 2D and 3D animation
Unit 3: Principles of Animation
Unit 4: Acting for Animators

Relevant Readings: (These are the types of readings that could help students in this course. But individual instructors will provide more detailed readings as part of the teaching plan.)

1. The Illusion of Life by Frank Thomas and Ollie Johnston, Harper Collins Usa, 1995.
2. Animation 1: Learn to Animate Cartoons Step by Step by Preston Blair, Walter Foster Publishing, 2003.
3. Animator's Survival Kit by Richard Williams, Faber & Faber, 2009.
4. The art of 3D Computer animation and Effects by Isaac V. Kerlow, John Wiley & Sons, 2003.
5. Timing for Animation by Harold Whitaker and John Halas, Focal Press, 2002.
6. Acting for Animators by Ed Hooks, 2017
7. Understanding Animation by Paul Wells, Routledge, 1998.
8. The Encyclopedia of Animation Techniques by Richard Taylor, Booksales, 2004.
9. Storytelling through Animation by Mike Wellins, Charles River Media, 2005.
10. Animation: A World History by Giannalberto Bendazzi

3D Computer Animation 1

Course Description.

Orientation of concepts and production process of three-dimensional (3D) computer animation.

Objectives

To sensitize students about basics of computer animation and make them acquainted with the interface of Maya with focus on 3D modelling. Students will also be introduced to some generic terminology of Maya, which they will be using throughout the course.

Unit 1: Introduction to 3D Modeling

Unit 2: 3D Modelling Techniques

Relevant Readings

1. CG 101 (A computer graphics industry reference) by Terrence Masson, 2007.
2. Maya Professional Tips and Techniques by Lee Lanier, Sybex, 2007.
3. Maya Techniques: Hyper-Real Creature Creation (Maya Techniques) by Alias
4. Learning Tools, Eric Miller, Paul Thuriot, and Jeff Unay
5. Creating Striking Graphics with Maya and Photoshop by Daniel gray
6. Advanced Maya Texturing and lighting by Lee Lanier
7. Maya 8 at a Glance by George Maestri and Mick Larkins, 2009.
8. The Art of Maya: An Introduction to 3D Computer Graphics by Autodesk Maya Press, Wiley, 2007
9. The art of polygonal modeling Kindle Edition by Marco Pavone, 2017.
10. Rhino NURBS 3D Modeling Paperback – August 1, 1999 by Margaret Becker
11. Autodesk Maya - An Introduction to 3D Modeling Paperback – June 24, 2018

by 3dExtrude
12. Autodesk Maya 2019: A Comprehensive Guide Paperback – May 31, 2019 by Prof. Sham Tickoo Purdue Univ.

Film-making

Course Description

Students will understand essential workflow, theories and principles of Film making. The course will also train the students in understanding the basics of sound production and its application to the medium of Animation. They will be given hands-on training in audio and video recording. They will also learn the basics of Editing.

Objectives

To train the student to create a visual narrative, as essential grounding required for their animation projects.

Unit 1: Film language

Unit 2: Story and script

Unit 3: Storyboarding

Unit 4: Camera

Unit 5: Editing Principles

Unit 6: Sound Recording and Sound Design

Relevant Readings

1. On Film-making: An Introduction to the Craft of the Director by Alexander Mackendrick, Paul Cronin and Martin Scorsese, 2005.
2. Cinematic Storytelling: The 100 Most Powerful Film Conventions Every Filmmaker Must Know by Jennifer Van Sijll, 2005.
3. Designing Sound for Animation by Robin Beauchamp 2005.
4. How to write for Animation by Jeffrey Scott, Overlook Press, 2003.
5. Animation Writing and Development: From Script Development to Pitch by Jean Ann Wright
6. Wallace and Gromit: The Wrong Trousers- Storyboard Collection by Nick Park
7. Storytelling through Animation by Mike Wellins
8. Prepare to Board! Creating Story and Characters for Animated Features and Shorts, Nancy Beiman, Focal Press, 2007.
9. Ideas for the Animated Short: Finding and Building Stories, Karen Sullivan, Kate Alexander, Gary Schumer, 2008.

Credits Distribution for M.A. Visual Effects & Animation - Semester- III

(4 Core Papers and 1 CBCS Paper)

Paper No.	Subject	Internal Marks Theory (IAT)	Univ. Exam Marks Theory (UET)	Internal Marks Practical (IAP)	Univ. Exam Marks Practical (UEP)	Total Marks	Credits Theory + Practical	Credits Total	Hours Theory + Practical	Hours Total
MGN301	Visual Effects II	40	60	50	50	200	2+2	4	2+4	6
MGN302	Advanced 3D Computer Animation	40	60	50	50	200	2+2	4	2+4	6
MGN303	2D Computer Animation II	40	60	50	50	200	2+2	4	2+4	6
MGN304	Animation Production	40	60	50	50	200	2+2	4	2+4	6
MGN305	Business & Entrepreneurship			50	50	200	2+2	4	2+4	6
CBT101	CBCS	40	60	-------	-------	100	3+0	4	3+0	3
						1100	TOTAL= 24 Credits		TOTAL= 33 Hours	

<u>SEMESTER III</u>

Visual Effects II

Course Description

This course offers a comprehensive introduction to the field of post production - primarily, motion graphics, focusing on the utilisation of Adobe After Effects as the primary creative tool. Through a structured curriculum, students will gain a solid foundation in the technical aspects of the software while simultaneously exploring the core design principles that underpin successful motion graphics projects.

They will also be introduced to the design of Layout and Background by drawing storyboards and layouts. They would use the storyboard to produce a complete Animatic with scratch sound.

A particular emphasis will be placed on the critical role of typography within the motion graphics framework. Students will delve into the fundamentals of type design, exploring concepts such as font classification, hierarchy, and the relationship between type and visual communication.

The course curriculum extends beyond the exclusive use of After Effects. Students will be introduced to the complementary skill set of digital matte painting and set extension techniques, utilising Adobe Photoshop to create expansive and immersive environments for their animations. Furthermore, the course will explore the potential of free-to-use generative AI tools, demonstrating their application in the initial stages of concept generation.

Course Objectives:

Develop an understanding of the design process involved in bringing motion graphics concepts to life with a comprehensive introduction to typography.
Apply core design principles, particularly in regard to typography, to create impactful motion graphics projects in Adobe After Effects.
Employ animation principles to effectively communicate ideas through visual storytelling.
Create storyboards to visualise the flow and narrative arc of their animation projects.
Design effective layout diagrams to plan and visualise compelling compositions for animation or pre-visualisation.
Craft engaging backgrounds using illustration, digital matte painting, or generative AI tools.

Course Structure:

Unit 1: Introduction to Motion Graphics

Unit 2: Deep Dive into Typography

Unit 3: Mastering the Essentials of After Effects

Unit 4: Bringing Graphics to Life

Unit 5: Advanced Techniques and Integration

Unit 6: Layout and Background

Unit 7: Digital Matte Painting & Set Extension

Unit 8 - Project Development

Software:

      Adobe After Effects
      Adobe Photoshop

Additional Resources:

      Online Tutorials: Adobe After Effects Tutorials
      (https://creativecloud.adobe.com/learn/app/after-effects)
      Motion Graphics Inspiration Websites: https://motionographer.com/ &
      https://aescripts.com/learn/aescripts-aeplugins-manager-app/

Relevant Readings:

1. Color Correction Handbook: Professional Techniques for Video and Cinema (Digital Video & Audio Editing Courses) 2nd Edition, Alexis Van Hurkman, Peachpit Press; 2 edition (18 November 2013)
2. Compositing Visual Effects: Essentials for the Aspiring Artist 2nd Edition, Steve Wright, 2013.
3. Transforming Type: New Directions in Kinetic Typography, Barbara Brownie, 2014.

4. Motion Graphics: Principles and Practices from the Ground Up, Ian Crook & Peter Beare, 2017.
5. Unlocking Animation Layout: Expert Techniques for Effective Backgrounds by Dan Hansen, CRC Press, 2025
6. Layout and Composition for Animation by Ed Ghertner, Focal Press, 2017
7. Setting the Scene: The Art & Evolution of Animation Layout by Fraser MacLean, Chronicle Books, 2011

Advanced 3D Computer Animation: Theory and Application

Course Description

This course integrates the classic principles of traditional animation, focusing on movement and timing, into the realm of computer animation. Students will learn the fundamentals of rigging models for expressive movement, including an introduction to forward and inverse kinematics. Through practical exercises, students will develop skills in rigging and animating within Maya.

This course offers a comprehensive approach to integrating traditional animation principles into computer animation. By focusing on rigging and animating in Maya, students will develop a strong foundation in both the technical and artistic aspects of 3D animation. Practical exercises and projects will reinforce learning and provide hands-on experience in creating expressive and dynamic animations.

Course Objectives:
The course aims to teach the fundamentals of rigging and animating in Maya.
Apply principles of simulated cinematography and visual aesthetics.
Enhance understanding of movement and timing in animation.
Develop practical skills through short exercises and projects.

Unit 1: Basic Character Design and Rigging

Unit 2: Introduction to 3D Animation

Unit 3: Character Animation

Relevant Readings:
1. Rig it Right! Maya Animation Rigging Concepts, 2nd edition, Tina O'Hailey, 2018.
2. Rigging for Games: A Primer for Technical Artists Using Maya and Python, Eyal Assaf, 2015.
3. Stop Staring: Facial Modeling and Animation Done Right, Jason Osipa, third Edition, 2010.

2D Computer Animation- II

Course Description:

This course will introduce students to more advanced techniques of 2D computer animation using Adobe Animate. Students will gain knowledge on how to manipulate facial expressions and will be taught how to create a character using nested symbols and libraries of phonemes and facial expressions.

Course Objectives:

Gain proficiency in the Adobe Animate user interface.
Understand and apply the 12 Principles of Animation.
Develop basic character design skills.
Create fluid and expressive animations using various techniques.
Facial animation of one or more characters with Lip sync
Implement essential animation workflows for efficient production.

Course Schedule :

Unit 1: Character Design & Turnarounds

Unit 2: Traditional Animation Techniques in Animate

Unit 3: Walk Cycles & Character Movement

Unit 4: Tweening & Animation Workflows

Unit 5: Lip Syncing, Sound Design & Audio Integration

Unit 6: Scene Setup & Background Design

Unit 7: Final Project & Portfolio Preparation

Relevant Readings:
1. The Art of Flash Animation: Creative Cartooning by Mark Stephen Smith, Wordware Publishing, 2007.
2. Macromedia Flash Animation & Cartooning: A Creative Guide, McGraw-Hill Companies, 2001.
3. Adobe Flash Animation: Creative Storytelling for Web and TV by Philip Carrera, Jones & Bartlett Publishers, 2010.
4. How to Cheat in Adobe Flash CC: The Art of Design and Animation 1st Edition, Kindle Edition, Chris Georgenes, 2014.

Animation Production - II

Course Description:

This course equips students with the necessary tools to transform a social issue of personal interest into a compelling motion graphics film of at least 30 seconds duration. Through a structured research process, students will gather verifiable data, cultivate a clear understanding of their chosen issue, develop a focused narrative and utilise animation and visual design principles to create a film that fosters conversation and action. The purpose of defining the subject and medium in this production is to ease the student into individual

story-telling. The outcome is a portfolio item that demonstrates the student's ability to perform data visualisation and explainer videos.

Course Objectives:

Identify and research a contemporary social issue.
Critically analyse data, narratives, and diverse perspectives surrounding the chosen issue.
Develop a concise thesis statement and define a target audience for their film.
Construct a compelling narrative structure.
Leverage animation techniques and visual design principles to effectively communicate their message.
Produce a polished motion graphics film with a clear call to action.

Course Structure:

The course unfolds in three distinct phases:

Phase 1: Research and Exploration (Weeks 1-4)

Phase 2: Scriptwriting and Pre-Production (Weeks 5-8)

Phase 3: Production and Post-Production (Weeks 9-12)

Evaluation:

Research Paper (20%): A well-structured research paper exploring the chosen social issue, data analysis, and a clear thesis statement.
Script and Storyboard (20%): A compelling script and storyboard effectively visualising the film's narrative.
Design Portfolio (20%): A collection of design elements showcasing color palettes, typography choices, and stylistic approaches.
Final Motion Graphics Film (40%): A polished motion graphics film of at least 30 seconds that has a defined story arc and clearly communicates the intended message while demonstrating effective data visualisation and animation techniques.

Relevant Readings:

1. Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation, Francis Glebas, 2008.
2. Framed Ink: Drawing and Composition for Visual Storytellers, Marcos Mateu-Mestre, 2010.
3. Brenda Laurel, P. L. (2003). Design Research: Methods and Perspectives. USA: The MIT Press.
4. Lindlof, T.L. & Taylor, B. C. (2011). Qualitative Communication Research Methods. 3rd edition. Thousand Oaks, CA: Sage Publications
5. Rose, G. (2016). Visual Methodologies. UK: Sage Publications Limited. 4th Edition
6. Visual Methods in the Field - Photography for the Social Sciences By Terence Heng
7. Graphic Storytelling and Visual Narrative. By Will Eisner (2008). Florida: Poorhouse Press.

8. Motion Graphics: Principles and Practices from the Ground Up, Ian Crook & Peter Beare, 2017.
9. Information Is Beautiful by David McCandless, Collins, 2012
10. Dear Data: A Friendship in 52 Weeks of Postcards, Princeton Press, 2016 by Giorgia Lupi, Stefanie Posavec
11. Design Essentials for the Motion Media Artist: A Practical Guide to Principles & Techniques by Angie Taylor, 2010.

Business and Entrepreneurship Skills

Course Description:

This course equips animation students in India with the skills to navigate the Indian animation industry, develop business acumen, and explore freelance or entrepreneurial opportunities. Students will learn budgeting and marketing skills and gain the experience needed to discover, develop, produce,and launch entertainment properties. This course will include an event where individual students will create and sell merchandise based on their own work. This experience will give them the insights to create a pitch and ideas about how to market it.

Objectives

Students will learn the skills and gain the experience needed to discover, develop, produce,and launch entertainment properties. This course will include a project where individual students will project or illustrate a project or a product and will pitch ideas about how they will market it.

Course Structure:

Unit 1: Introduction & Self-Discovery
Unit 2: Business Basics & Legal Considerations
Unit 3: Project Management, Time Management, & Budgeting with Excel
Unit 4: Marketing for Animators with AI Tools
Unit 5: Pitching & Client Communication
Unit 6: Introduction to Freelancing with AI Support in India
Unit 7: Working at Animation Studios in India
Unit 8: Showcase & Event with AI-powered Design Tools

Relevant Readings:

1. Producing Animation, Catherine Winder, Zahra Dowlatabadi, Focal Press, 2001.
2. Animation Development: From Pitch to Production, David B. Levy, Allworth Press; 2009.
3. Your Career in Animation: How to Survive and Thrive, David B. Levy, Allworth Press, 2006.
4. The Animation Producer's Handbook, Lea Milic, Yasmin McConville, Open University Press, 2006
5. Directing Animation, David B. Levy, Allworth Press, 2010.