

BAMT

FIFTH SEMESTER

Sr. No	Subject	Subject Code	L	T	P	Marks		Maximum Marks	Examination hours
						Int.	Ext.		
1	Fundamentals of Aesthetics	AMT-501	3	0	0	40	60	100	03 Hours
2	Television Graphics & Animation Lab	AMT-502	1	0	6	60	40	100	--
3	Media Theory	AMT-503	3	0	0	40	60	100	03 Hours
4	Acting and Directing for Animation Lab	AMT-504	0	0	4	60	40	100	--
5	Digital Compositing Lab	AMT-505	1	0	6	60	40	100	--
6	Project-I	AMT-506	0	0	6	60	40	100	
	TOTAL		8	0	22	320	280	600	

SIXTH SEMESTER

Sr. No	Subject	Subject Code	L	T	P	Marks		Maximum Marks	Examination hours
						Int.	Ext.		
1	Publicity Designing & Media Laws	AMT-601	3	0	0	40	60	100	03 hours
2	Special Effects in Feature Films Lab	AMT-602	1	0	4	60	40	100	--
3	Introduction to Game Designing Lab	AMT-603	1	0	4	60	40	100	--
4	Animation Dynamics Lab	AMT-604	1	0	4	60	40	100	--
5	Project - II	AMT-605	0	0	12	100	100	200	--
	TOTAL		6	0	24	320	280	600	

Note : For Project -II (AMT-605) the students will have choice between the following:

- A. Short Animation Movie (2-D /3-D).
- B. Special Effects (VFX) Short Movie.
- C. Advertising Campaign (Short Ad Film / Print Media Campaign spread over a period time from pre-launch stage to brand building)
- D. Promotional Material (Promotional film, Brochure, Hanging, Posters)

SEMESTER – 5

Internal: 40 Marks
External: 60 Marks

AMT- 501

Fundamentals of Aesthetics

L-3 T-0 P-0

OBJECTIVE - The main objective of the subject is to impart the knowledge about complete and theoretical studies of Aesthetics.

1. **Defining Aesthetics(5%)**: What is Aesthetics, Aesthetic Experience, Plato, Aristotle.
2. **History of Indian Aesthetics (20%)**: Five Schools, Bharatmuni, Natyashashtra,
3. **Nine types of Rasa (20%)**: The principle study of Rasa like: Love, Joy, Wonder, Peace, Anger, courage, Fear, Sadness, Disgust.
4. **Six types of Bhavas (20%)**: The principle study of Bhavas like: Unruffled feeling, Comrade feeling, Servent-Master attitude, Mother Child feeling, Loved-Beloved feeling, Oneness with God.
5. **Applied Media Aesthetics (20%)**: What is Applied Media Aesthetics, Fundamental Elements of Applied Media Aesthetics, difference between Applied Media Aesthetics and Traditional Aesthetics.

References:

1. Indigenous Aesthetics: Native Art, Media, and Identity by Steven Leuthold (University of Texas Press), **Publisher**- University of Texas Press.
2. Art Beauty and Creativity: Indian and Western Aesthetics by Shyamala Gupta, **Publisher**- D K Print World.

Semester– 5

Internal: 60 Marks
External: 40 Marks

AMT- 502

Television Graphics & Animation Lab.

L-1 T-0 P-6

OBJECTIVE - The main objective of the subject is to impart the knowledge about television Graphics & Animation.

Unit 1: Designing Graphics for Television (20%) :

- Introduction to Tools, Basic Shapes of 2-D & 3-D for Motion Graphics.
- Logo Designing for Television Graphics.
- Product Modeling.
- UV Unwrapping, Texturing.

Unit 2: Lighting for Computer Graphics (CG) (20%) :

- Using lights & shadows on 3-d Environment.
- Glow Effects, Fog Effects, Volume Effects.
- Video Post.

Unit 3: Animating Graphics (25%):

- Basics of Television Graphic Animation.
- Animating Logos, Titles.
- Camera Animation.
- Creating Fire Effects, Explosions.

Unit 4: Rendering of Graphic (20%)

- Mental Ray Techniques.
- Layer Based Rendering.
- Global Illumination, Final Gather, Caustics.

Unit 5: Compositing(15%)

- Introduction to Tools.
- Color Keying, Color Correction.
- Montage, Channel Ids.
- Compositing CG with Live Footage.

Submissions:

- A short Clip Advertising/News Logo (Motion Graphics).

SOFTWARES : Autodesk 3-D Max, Autodesk Maya, Adobe After Effects, Adobe Premier Pro.

Reference:

1. 3-D Movie Making : Stereoscopic Digital Cinema (By:Bernard Mendiburu)
Publisher: Focal Press
2. 3-D Filmmakers: Conversations with Creators of Stereo(By: Ray Zone)
Publisher: The Scarecrow Press

SEMESTER – 5

**Internal: 40 Marks
External: 60 Marks**

AMT-503

Media Theory

L-3 T-0 P-0

OBJECTIVE - The main objective of the subject is to impart the knowledge about Media and various Media Theories.

1. General Introduction (10%):

- Film and TV.
- Theory of Production & Consumption of Media Content.

2. Theories of Spectatorship (10%).

3. Feminism and Film Theory (10%).

4. Reception Theory (10%).

5. Film Genres (10%).

6. Advertisements (10%).

7. Film Criticism (10%).

8. Film Theory (10%).

9. Media and Cultural Theory(10%).

10. Video – Everyday uses of Video, Video Art and Digital Video Transformation of Consumer to User(10%).

Books

1. Movies & Methods: Vol. 1 & 2 by Bill Nichols, Publisher-University of California Press
2. Modern Criticism and Theory by David Lodge, Publisher- Longman
3. Concepts in Film Theory by Dudley Andrew, Publisher- Oxford University Press.

SEMESTER – 5

**Internal: 60 Marks
External: 40 Marks**

AMT-504

Acting & Directing for Animation Lab

L-0 T-0 P-4

OBJECTIVE - The main objective of the subject is to impart the practical knowledge about acting and directing for Animation Films.

1) Essential of Acting Concepts (25%)

ACTING

- Basic Performance skills, physical preparation.

VOICE, SPEECH & MUSIC

- Exercises that focus on breathing, humming, pitch, volume and singing .

IMPROVISATION & ACTING

- Through improvisation, both silent and word-oriented, learning to see, hear, believe, react, observe and concentrate.

2) Facial expressions & Lip synchronization (50%)

- How to use Character,s body, voice and imagination?
- How to be aware of Character's body ,facial expressions and to concentrate on its rhythm, enter space and loosen their limbs
- Acquiring acting skills through sessions focused on an understanding of the self.
- Mimicking & Voice Modulation.

3) Directing Animation (25%)

- Developing a Story for Animation, Scripting & Storyboarding.
- Fundamentals of Cinematography – Camera Angles, Lighting & creating mood, Shots, Screenplay.

Submissions

- Animation with dialogue & expressions(minimum one minute).

References books:

- Acting for Animators – Ed Hooks **Publisher:** Heinemann Drama; Revised edition
- The artist's complete guide to facial expressions – Gary Gaigin
Publisher: Watson-Guptill
- Stop staring : Facial modeling & animation done right – Jason Osipa
Publisher: Sybex

SEMESTER – 5

Internal: 60 Marks
External: 40 Marks

AMT-505

Digital Compositing Lab

L-1 T-0 P-6

OBJECTIVE - The main objective of the subject is to impart the practical knowledge about Digital compositing & post-production of various media.

1) Digital Compositing (10%)

- What is Compositing?
- Fundamentals of Digital Compositing.
- Capturing through Fire wire.
- Various File Formats or video extensions.

2) Introduction to Adobe After Effects (10%)

- Learning the toolbar.
- Introduction to the interface of the Adobe After Effects.
- Compositing the real life shoot with CG (Computer Generated) characters or Environment.
- Blending of CG (Computer Generated) lights & cameras with real shoot.

3) Project Setting, Timeline, Layers (10%)

- Organizing Footages
- Composition settings in Adobe After Effects.
- Basic settings, Presets & Resolutions.
- Advanced settings, Rendering plug-ins.
- Maintaining timing, spacing & proper play speed of video.
- Creating layers.
- Managing Layers & their Properties.
- Blending modes & Layer styles.

4) Key framing, Transitions (10%)

- Basics of key framing (whether the video is in PAL or NTSC.)
- How to move & copy keyframes.
- Animate the keyframes.
- Adding the keyframes.
- Learning about the transition effect & transition completion.
- Learning transition gallery.

5) Video Effects & Motion (20%)

- Color correction in video.
- Creating virtual animated backgrounds.
- Visual Effects Using Various Plug-in.
- Text animation in Adobe After Effects.
- Virtual cameras, lights.
- Learning the uses of particles, & dynamics.
- Different types of effect making like fire, dust, etc.

6) Audio Effects (10%):

- Sound Recording & Editing.
- Audio capturing & Synchronization.
- Controlling Pitch and tempo.

- Merging with the scenes.
- Encoding.

7) Chroma Keying (20%):

- Basics of chroma keying.
- What is Blue/Green Screen Imaging.
- Why Blue/Green color be used?
- Lighting Chroma Key Properly.
- Green screen, Blue screen removal.
- Wire removal.

8) Output (10%)

- Learning supporting output video formats.
- Work with output module settings.
- Rendering and exporting.
- Render Queue panel.
- Encoding & compression options for movies.
- Rendering final movie.
- Video & audio Editing & merging.

Submissions

- 30 sec composited project.
- Clips with video & audio effects.
- Clips with chroma keying application.

References:

- Adobe After Effects Documentation.
- Digital compositing for film & video by Steve Wright
Publisher: Focal Press
- Professional digital compositing by Lee Lanier.
Publisher: Sybex; Pap/Dvdr O edition
- Adobe after effect visual effects & compositing by Mark Christiansen
Publisher: Adobe Press

SEMESTER – 5

**Internal: 60 Marks
External: 40 Marks**

AMT-506

Project-I

L-0 T-0 P-6

OBJECTIVE - The main objective of the subject is to make a short animation film by students as their Individual Show reel.

The student is required to make a Show reel/Individual Project of minimum 2 Minutes. The student can choose between the following options:

- a. Motion Graphics.
- b. 3-D Animation.
- c. Digital Compositing.

SEMESTER – 6

Internal: 40 Marks
External: 60 Marks

AMT-601

Publicity Designing and Media Laws

L-3 T-0 P-0

OBJECTIVE - The main objective of the subject is to impart the knowledge about Publicity Designing, promotion of Projects/Products which plays an important role in the success of the Project. The other part of the subject is to impart knowledge about the Film Criticism /developing reviews.

1. Various Mediums of Publicity (50%):

- Print Media – Newspapers, Magazines, Brochures, Posters, Leaflets, Pamphlets, Dangers, posters etc.
- Outdoor Advertising – Hoardings, Cutouts, Bus Panels, Posters.
- Electronic Media – Audio(Radio ,FM), Audio-Visual (Television)
- Internet- Websites, Online advertising, Blogs, Banners,Emails.
- Cinema.
- Exhibitions, Trade Fairs.

2. Media Laws in India(50%)

- Indian print Media in the context of Globalization.
- Copyright Act – Recent Indian Laws.
- Contempt of Court- Civil and Criminal Contempt.
- Defamation.

References Books:-

1. Truth, Lies and Advertising : The Art of Account Planning by John Steel,
Publisher - Wiley.
2. Bare Acts of Indian Copyright Act, Contempt of Court Act.

SEMESTER – 6

Internal: 60 Marks
External: 40 Marks

AMT-602

Special Effects in Feature Films Lab

L-1 T-0 P-4

OBJECTIVE - The main objective of the subject is to impart the practical knowledge about how to make special effects for feature films.

Essential concepts of Special effects (10%): Visual or Special Effects and Concept Design about ideas and concept generation for the film and games industries - ranging from characters, vehicles, products, clothing, sets and environments. The content may be historical, contemporary or future-based ie 'visions' of society, lifestyles, environments as the game/film plot dictates.

Special effects planning (10%) : Overview of story boarding of effects, planning and managing the test shot and research about techniques.

Paint, Retouch & Wire removal (20%): The complete and advance study of the usage of paint and brush tools like brush, clone, stamp, eraser and wire removal to suspend an actor or prop in mid-air.

Camera Matching, Tracking & Stabilizing (20%): The study of Image stabilization consists in compensating for the camera motion by applying a suitable transformation (*warping*) to the image. In the stabilized image, scene points are motionless in spite of camera motion.

Maya render passes & 3D compositing (20%): The study of render passes or diffuse or specular passes can even be rendered or composite on a light basis to increase the degree of post-control.

Combining live action & CG (20%): The study of combining computer generated character or an object with live camera footage.

Submissions

- Clips with Special effects (minimum 01 minute)

References books:

- Special effects : The History & Techniques – Richard Rickitt
Publisher: Watson-Guptill
- Adobe after effects CS4 Visual effects & compositing studio techniques - Mark Christiansen. **Publisher:** Adobe Press
- Maya Visual effects : The innovator's guide – Eric Keller **Publisher:** Sybex
- Maya Documentation
- After Effect Documentation

SEMESTER – 6

Internal: 60 Marks
External: 40 Marks

AMT- 603

Introduction to Game Designing Lab

L-1 T-0 P- 4

OBJECTIVE - The main objective of the subject is to impart the knowledge about 3-D Game Art Designing.

1) Game Art designing fundamentals (5%):

Basic concept of game designing, Character sketching, concept of character developing.

2) Game character & Environment design (10%):

Modeling a base mesh in Maya, concept of topology, Environment devolving.

3) Introduction to Zbrush (10%):

User Interface, over view of tools, shortcuts, Import & Export of mesh

4) Detailing the base mesh into Zbrush(15%):

Tools and Technique for detailing the mesh

5) Normal Maps (5%):

Overview of Normal maps, import & Export of normal maps

6) Z-brush – Maya Integration (5%):

Overview of z-brush and Maya integration

7) Texturing (10%):

Process of texturing for game, UVW mapping , Texture making (using Photoshop)

8) Baking maps(10%):

Overview of Baking maps , process for baking maps

9) Light Baking (10%):

Overview of Light Baking, process for baking Lights

10) Scene Optimization (5%):

Overview of scene optimization, process for optimization

11) File Import Export (5%):

The concept of file importing and Exporting

Submissions

- Low poly Game Character
- Environment of Exterior
- Environment of Interior

References books:-

- Game Design: Principles, Practice, and Techniques - The Ultimate Guide for the Aspiring Game Designer – Jim Thompson **Publisher:** Wiley

- Creating Game Art for 3D Engines – Brad Strong **Publisher:** Charles River Media
- Max Documentation
- Creating the Art of the Game – Matthew Omernick **Publisher:** New Riders Games
- Introducing Zbrush – Eric Keller **Publisher:** Sybex
- ZBrush Digital Sculpting Human Anatomy – Scott Spencer **Publisher :** Sybex

SEMESTER – 6

Internal: 60 Marks
External: 40 Marks

AMT-604

Animation Dynamics Lab

L-1 T-0 P-4

OBJECTIVE - The main objective of the subject is to impart the practical knowledge about dynamics & physics simulation in Maya.

Introduction to Dynamics (10%): The Overview of Fur menus, hair, Ocean locators and wakes, nParticles, Ultimate Fluid.

Hair & Fur (30%): The time will spend more with the core node of the system of Hair and Fur description. The process will go through of the loading the plugin of fur and go through each of the attribute one by one in the fur and hair description.

Cloth (30%): Overview of Nucleus node, Realistic cloth simulation, Scene scale and settings, time scale, Mass, Dynamics forces, Friction, rigidity, Passive object collisions, glue strength, Pressure, Tearing Surfaces, Caching ncloth, Deformation Resistance.

Introduction to nParticles (10%): nParticles is the robust toolset for simulating complex physics simulations and an intuitive workflow for creating liquids, clouds, smoke, spray and dust effects using nParticles.

Introduction to Ultimate Fluids (10%): It is used for to create realistic fire effects; Navier-strokes fluid solver; Spring mesh fluid solver, interactive fluids with particles, advanced heat dynamics, combustible fluids, soft surface simulations, realistic liquid simulations.

Introduction to Paint Effect (10%): Popular highlights include toon rendering, mesh brush, optimizing scene, light based effects, control curves based effects, secondary animation, custom brushes.

Submissions:-

- Character Hair.
- Waving Flag.
- Character Cloth.

References books:-

- Maya Documentation
- Maya Studio Projects: Dynamics – Todd Palamar **Publisher**: Sybex

SEMESTER – 6

Internal: 100 Marks
External: 100 Marks

AMT-605

Project - II

L-0 T-0 P- 12

OBJECTIVE - The main objective of the subject is to make a short animation film by students as their Project Show reel so that the student can be easily assimilated in the Industry .The students can choose the area of Specialization keeping in view their interest.

For Specialization Project/ Show reel (AMT-605) the students will have choice between the following Specializations :

- A. Short Animation Movie (2-D /3-D).
- B. Special Effects (VFX) Short Movie.
- C. Advertising Campaign (Short Ad Film/Print Media).
- D. Promotional Material (Promotional film, Brochure, Hanging, Posters)

Note: The students shall work partly in the college and partly in the concerned Industry .