

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**Syllabus of B. Sc. in Animation and Film Making (CBCS)**  
**(Effective from academic session 2021-22)**

**SEMESTER - 6**

**Paper: ACTING FOR ANIMATORS**

Code: BAFM 601

**Course Objective:** The course is designed to provide an introduction to the fundamental aspects of design, drawing methodologies as well as visual communication. Students will be able to develop a sense of design aesthetics as well as create better processes of design systems. They can understand the form by learning basic shapes, composition and light, perspective figure drawing.

| Sl | Course Outcome                        | Mapped modules |
|----|---------------------------------------|----------------|
| 1  | Remembering                           | M1, M2         |
| 2  | Understanding the course              | M1, M2, M3, M4 |
| 3  | Applying the general problem          | M3, M4         |
| 4  | Analyse the problems                  | M3, M4         |
| 5  | Evaluate the problems after analysing | M3, M4         |
| 6  | Create using the evaluation process   | M3, M4         |

| Module Number | Content                                      | Total Hours | %age of questions | Blooms Level (if applicable) | Remarks (If any) |
|---------------|--|-------------|-------------------|------------------------------|------------------|
| M 1           | Aspects of acting and direction              | 10          | 25                |                              |                  |
| M 2           | Acting for Animation & Character Performance | 10          | 25                |                              |                  |
| M 3           | Different Aspects of acting                  | 10          | 25                |                              |                  |
| M 4           | Creative Approach                            | 10          | 25                |                              |                  |
|               |  | <b>40</b>   | <b>100</b>        |                              |                  |

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**ACTING FOR ANIMATORS**

Total Credit: 4

Total hours of lectures: 30 hours

| Sl. | Topic/Module  | Hour |
|-----|---|------|
| 1.  | <p><b>Module 1 - Aspects of acting and direction</b></p> <ul style="list-style-type: none"> <li>• Aspects of Acting and Direction, becoming an Actor, becoming a Story teller, becoming a creative practitioner over the process of animation.</li> <li>• Introduction to acting, History of action, how acting relates to animators, acting techniques, history and development of mime and pantomimes, history and development of dramas, Commedia dell' Arte- acting commedia, the characters, relating commedia characters to animation.</li> <li>• Anatomy of an Animation Director, Directing the Story, the art of Professional Story-telling, Responsibilities of a story artist.</li> <li>• Creative handling of the content, Implementing or feeding the concept onto the character over a brief characterization, Directing the voice actors, Detailing of the facial expressions and emotions.</li> </ul> | 10   |
| 2.  | <p><b>Module 2 - Acting for Animation &amp; Character Performance</b></p> <ul style="list-style-type: none"> <li>• Learning Elements of a well animated performance.</li> <li>• Learn about vocal performance, flowing emotional channels through vocal acting.</li> <li>• Performance of the animation, learning the shot process, act around the shot learn about the characteristics of the shot, act within the poses.</li> <li>• Create a believable performance by layering animation techniques, learn character timing to transition through emotions.</li> </ul>   | 10   |
| 3.  | <p><b>Module 3 - Different Aspects of acting</b></p> <ul style="list-style-type: none"> <li>• Learn and understanding of believable acting, retain a consistent attitude to your character's reactions.</li> <li>• Understanding dynamic facial posing: Use the line of action to create great expressions.</li> <li>• Engaging the body: Use your character's whole body in their performance, learn how to Exaggeration to Push your poses.</li> <li>• <b>Understanding the script, get int to the characters, learn about the Subtext:</b> Animate a character's thoughts rather than their words.</li> <li>•</li> </ul>   | 10   |
| 4.  | <p><b>Module 4 – Creative Approach</b></p> <ul style="list-style-type: none"> <li>• Understanding the Characterization, Emotional Memory, Stage</li> </ul>  | 10   |

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|  | <p>appearance and Screen Presence.</p> <ul style="list-style-type: none"> <li>• Experimental Acting by combining Human &amp; other Creatures behavior</li> <li>• Acting of different human age groups</li> <li>• The variety of acting methodologies involves Mime Acting, Method Acting, The Chekhov Technique, Meisner Technique, Practical Aesthetics, Neurosthetic Acting, Shake Acting and Voice Characterization.</li> <li>• Seven essential acting concepts, the audience – suspending disbelief and animation, stage actors versus animators, theatrical reality versus regular reality. The Character – personality animation, character analysis, primal analysis. The Scene – negotiation, rehearsal, emotion and empathy.</li> <li>• Movement, power centers, gesture, space, effort, facial Expression, Speech, active listening, the camera, actors leading camera. Techniques for acting- simplifications, avoid ambivalence, reality and scene partner, Reference, Character Rhythm, symbolism and foreshadowing, use of mirrors. The Form- comedy, farce, caricature.</li> </ul> |  |
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**Suggested Reading:**

1. Acting for Animators: 4th Edition – Ed Hooks
2. Acting for the Camera: Tony Barr

**Paper: ACTING FOR ANIMATORS Lab**

Code: BAFM 691

**Course Objective:** Rigging is a crucial step in character development and animation. This course introduces the rules of rigging—good geometry, organization, and controls—and shows how to create joints, constraints, and connections. This course then dives into a real-world project, taking a model and building out the skeleton and the leg, foot, body, and hand controls required for effective animation. It also devotes a chapter to FK/IK switching for finer control over arm movement. Finally, learn how to attach a character mesh to your skeleton with the skinning tools in Maya—and take your skills up a notch with a time-saving mirroring technique.

| Sl | Course Outcome                        | Mapped modules |
|----|---------------------------------------|----------------|
| 1  | Remembering                           | M1, M2         |
| 2  | Understanding the course              | M1, M2, M3, M4 |
| 3  | Applying the general problem          | M3, M4         |
| 4  | Analyse the problems                  | M3, M4         |
| 5  | Evaluate the problems after analysing | M3,M4          |

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|---|-------------------------------------|--------|
| 6 | Create using the evaluation process | M3, M4 |
|---|-------------------------------------|--------|

| Module Number | Content                                      | Total Hours | %age of questions | Blooms Level (if applicable) | Remarks (If any) |
|---------------|--|-------------|-------------------|------------------------------|------------------|
| M 1           | Aspects of acting and direction              | 3           | 25                |                              |                  |
| M 2           | Acting for Animation & Character Performance | 3           | 25                |                              |                  |
| M 3           | Different Aspects of acting                  | 4           | 25                |                              |                  |
| M 4           | Creative Approach                            | 10          | 25                |                              |                  |
|               |  | <b>20</b>   | <b>100</b>        |                              |                  |

**ACTING FOR ANIMATORS Lab**

Total Credit: 2

Total hours of lectures: 40 hours

| Sl.       | Topic/Module   | Hour |
|-----------|--|------|
| <u>1.</u> | <b>Module 1 - Aspects of acting and direction</b> <ul style="list-style-type: none"> <li>• Create an individual short story to direct.</li> <li>• Create script add layers to the script, add proper dialogues for actors.</li> <li>• Create proper staging for actors to crate believable act.</li> <li>• Setup proper camera angel and create proper shot divisions for the act.</li> </ul>  | 8    |
| 2.        | <b>Module 2 - Acting for Animation &amp; Character Performance</b> <ul style="list-style-type: none"> <li>• Warm up exercises for acting.</li> <li>• Act in different types of poses, to portray clear and defined feelings (happy, sad, etc.)</li> <li>• Create opportunities to show thinking process, which leads to decision and action.</li> <li>• Create different types of facials for different types of acting ethics.</li> </ul> | 10   |

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| 3. | <p>Module 3 - Different Aspects of acting</p> <ul style="list-style-type: none"> <li>• Create and retain a consistent attitude to your character's reactions. A shy character (small, timid movements).</li> <li>• Discovering the dramatist's concept of the character: The motivating force, Analyzing the role.</li> <li>• Vocal and physical acting, Body rhythm, breathing patterns, Pronunciation, Voice Production, use Pitches, Dramatic use of every limb in expressing ideas.</li> <li>• Dramatic reading of poetry, prose and dramatic scene, Improvisation, enactment of situations and scene on stage as well in front of camera.</li> <li>• Organizing with Control Group ,Curve Control Creations , Body Control Curve Creation , Bridging Curve Control to Joints ,parent constraint , Bridging Trunk and Tail Creation ,</li> <li>• Skinning, smooth binding a skeleton, Painting skin weights -, mirroring smooth skin weights</li> </ul>  | 10 |
| 4. | <p>Module 4 – Creative Approach</p> <ul style="list-style-type: none"> <li>• Discovering the physical action – Committing to action – believing the action sustaining the belief making and score of the physical action.</li> <li>• Acting shot of animal, bird etc.</li> <li>• Acting Assignment on happy, sad, angry for different age groups.</li> <li>• Getting into the part, getting into the Character, getting into the Play, Speaking the lives, Directing attention concentration on action.</li> <li>• Interpreting the play – The Dual personality of the Actor, Interpreting the lines, Finding the under meaning of the lines, Finding the verbal action, Relating the lines to the motivating desire, Relating the lines to the dramatist meaning, Believing the characters manner of speaking, Motivating the longer speech.</li> <li>• The students must Club themselves into a group of 4-5 and differentiate themselves with a story part as per characterizations for an animation concept and act themselves accordingly as to create an acting reference video which also acts as the directorial guide to the animation concept they developed.</li> </ul> | 12 |

**Suggested Reading:**

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**Paper: ADVANCE CHARACTER ANIMATION**

Code: BAFM 602

**Course Objective:** The course is designed to provide an introduction to the fundamental aspects of design, drawing methodologies as well as visual communication. Students will be able to develop a sense of design aesthetics as well as create better processes of design systems. They can understand the form by learning basic shapes, composition and light, perspective figure drawing.

| SI | Course Outcome                        | Mapped modules |
|----|---------------------------------------|----------------|
| 1  | Remembering                           | M1, M2         |
| 2  | Understanding the course              | M1, M2, M3, M4 |
| 3  | Applying the general problem          | M3, M4         |
| 4  | Analyse the problems                  | M3, M4         |
| 5  | Evaluate the problems after analysing | M3, M4         |
| 6  | Create using the evaluation process   | M3, M4         |

| Module Number | Content   | Total Hours | %age of questions | Blooms Level (if applicable) | Remarks (If any) |
|---------------|---|-------------|-------------------|------------------------------|------------------|
| M 1           | Understanding Storyboard, animatics to create dynamic camera view       | 2           | 25                |                              |                  |
| M 2           | Advance character Animation   | 6           | 25                |                              |                  |
| M 3           | Different Techniques of Biped Animation & Facial and lip sync animation | 6           | 25                |                              |                  |
| M 4           | Understanding Different Animation tools and quadruped animation         | 6           | 25                |                              |                  |
|               |   | 20          | 100               |                              |                  |

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**ADVANCE CHARACTER ANIMATION**

Total Credit: 4

Total hours of lectures: 20 hours

| Sl. | Topic/Module   | Hour |
|-----|--|------|
| 1.  | <p><b>Module 1 - Understanding Storyboard, animatics to create dynamic camera view</b></p> <ul style="list-style-type: none"> <li>• Understanding storyboard &amp; animatics 2D&amp;3D</li> <li>• Understand the different screen aspect ratio formats, use floor plans to show set location Plan for an animation production using charts, Visual Direction, Background Design.</li> <li>• Types of Framing Shot, Camera Position, Camera View, Camera Motion.</li> <li>• Use camera position and angles to create dynamic scenes, use camera view to create scenes.</li> <li>• Camera angles, Movements of the camera- Pans, Tilts Truck in and Truck outs, Shots and Scenes, Dramatic effects, Visual language and readability, Visual continuity.</li> </ul>   | 2    |
| 2.  | <p><b>Module 2 - Advance character Animation</b></p> <ul style="list-style-type: none"> <li>• Revision of Animation Principles</li> <li>• Advanced Character Animation with Two Leg Animation, creating walk &amp; run cycle (with attitude)</li> <li>• Advanced Body Mechanism Animation, simple jump, long jump, weight push etc.</li> <li>• Reflecting on human movement, gaining an insight into creating believable action, sit to stand up, creating moving hold &amp; breathing, various dynamics action shots with proper body mechanism.</li> <li>• Advance Understandings of Keyframes &amp; Graph editor, Using the Graph Editor Changing the timing of an attribute, Fine tuning an animation Deleting extra keyframes and static channels, Setting the playback range Setting keyframes.</li> <li>• Using Play blast to playback an animation, Using Set Driven Key to link attributes, viewing the results in the Graph Editor.</li> </ul> | 6    |
| 3.  | <p><b>Module 3 – Different Techniques of Biped Animation &amp; Facial and lip sync animation</b></p> <ul style="list-style-type: none"> <li>• Advance Mechanics of biped walks, runs, head turns, gestures, Single Character Animation with Dialogues.</li> <li>• Animating the character with facial expressions.</li> <li>• Understanding of stress pads of dialog orientation (LIP Sync), the</li> </ul>  | 6    |

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|    | <p>facial expression poses according to the dialogue (LIP Sync), and dialog orientation.</p> <ul style="list-style-type: none"> <li>• Learn how two or more human character interact with each other using gestures and dialogues with all emotions.</li> </ul>  |   |
| 4. | <p><b>Module 4 – Understanding Different Animation tools and quadruped animation</b></p> <ul style="list-style-type: none"> <li>• Understanding Different body mechanism of quadruped animals.</li> <li>• Animating Four Leg Animation (walk, run, Jump)</li> <li>• Understanding Backend tools to add more realism to animation. (cushion,X-sheet,settle,Hook-up etc.)</li> <li>• Understanding proper play blast size, Character setup and Non-linear animation using trax editor.</li> <li>• Understanding Advance Animations tools. (Re- direct, Anim export &amp; import etc.)</li> </ul> | 6 |

**Software – Autodesk Maya**

**Suggested Reading:**

1. The Art of 3D: Computer Animation and Effects - by Isaac Kerlow
2. 3D Animation Essentials - by Andy Beane, John Wiley
3. Advanced Animation - by Preston Blair

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**Paper: ADVANCE CHARACTER ANIMATION Lab**

**Code: BAFM 692**

**Course Objective:** Rigging is a crucial step in character development and animation. This course introduces the rules of rigging—good geometry, organization, and controls—and shows how to create joints, constraints, and connections. This course then dives into a real-world project, taking a model and building out the skeleton and the leg, foot, body, and hand controls required for effective animation. It also devotes a chapter to FK/IK switching for finer control over arm movement. Finally, learn how to attach a character mesh to your skeleton with the skinning tools in Maya—and take your skills up a notch with a time-saving mirroring technique.

| SI | Course Outcome                        | Mapped modules |
|----|---------------------------------------|----------------|
| 1  | Remembering                           | M1, M2         |
| 2  | Understanding the course              | M1, M2, M3, M4 |
| 3  | Applying the general problem          | M3, M4         |
| 4  | Analyse the problems                  | M3, M4         |
| 5  | Evaluate the problems after analysing | M3, M4         |
| 6  | Create using the evaluation process   | M3, M4         |

| Module Number | Content   | Total Hours | %age of questions | Blooms Level (if applicable) | Remarks (If any) |
|---------------|---|-------------|-------------------|------------------------------|------------------|
| M 1           | Understanding Storyboard, animatic to create dynamic camera view        | 6           | 15                |                              |                  |
| M 2           | Advance character Animation   | 22          | 30                |                              |                  |
| M 3           | Different Techniques of Biped Animation & Facial and lip sync animation | 22          | 30                |                              |                  |
| M 4           | Understanding Different Animation tools and quadruped animation         | 20          | 25                |                              |                  |
|               |   | <b>70</b>   | <b>100</b>        |                              |                  |

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**ADVANCE CHARACTER ANIMATION Lab**

Total Credit: 2

Total hours of lectures: 40 hours

| Sl. | Topic/Module  | Hour |
|-----|---|------|
| 1.  | <p><b>Module 1 - Understanding Storyboard, animatics to create dynamic camera view</b></p> <ul style="list-style-type: none"> <li>• Creating Single and Multiple Cameras</li> <li>• Creating believable 3D Camera Movement with key frames</li> <li>• Setting up camera with different camera settings, using focal Lenth with different resolution and ratio.</li> <li>• Creating different camera shots using all types of camera angles with proper cut scenes and hook ups.</li> </ul>  | 4    |
| 2.  | <p><b>Module 2 - Advance character Animation</b></p> <ul style="list-style-type: none"> <li>• Making different types of walk and run cycle with rigged Human Character with Primary and secondary actions. (Normal, sad, proud etc.)</li> <li>• Creating different types of body mechanism assignments like Simple jump, Long Jump, Weight push, weightlift, and ball throw with rigged human character with primary and secondary actions.</li> <li>• Creating advance movement like moving hold, breathing, sit to stand with rigged human character with primary and secondary actions.</li> <li>• Cleanup animations with proper graph editor control, clean up extra keys from animation, creating proper playblast.</li> </ul>  | 12   |
| 3.  | <p><b>Module 3 – Different Techniques of Biped Animation &amp; Facial and lip sync animation</b></p> <ul style="list-style-type: none"> <li>• Creating different types of facial expressions (happy, sad, angry etc.) with rigged human characters.</li> <li>• Creating actions with different emotion and body gestures with rigged characters.</li> <li>• Importing voice clip and Creating Lip sync with facial expressions and voice dialogue with rigged human Characters.</li> <li>• Creating interactive emotions and body expressions, maintaining all principles of animation.</li> <li>• Synchronizing the lip sync or dialog with audio, creating proper dialog gesture and expression with action.</li> <li>• Working with the two characters, where to show both the characters are interacting to each other with rigged human characters.</li> </ul> | 12   |
| 4.  | <p><b><u>Module 4 – Understanding Different Animation tools and quadruped animation</u></b></p> <ul style="list-style-type: none"> <li>• Create four-legged character animation with any four legged animals</li> </ul>   | 12   |

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|  | (walk,run & jump). <ul style="list-style-type: none"><li>• Transfer animation using Animation import and export tools, changing playblast size ratio as per shot requirements.</li><li>• Create crowd animation, Importing and transferring animation to similar duplicated character showing as crowd.</li><li>• Change character movement using redirect tool.</li></ul> |  |
|--|--|--|

**Software** – Autodesk Maya

**Suggested Reading:**

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4. Acting for Animators: 4th Edition – Ed Hooks