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| COURSE TITLE | CAPSTONE PROJECT I :(MATERIAL ANIMATION) |
| COURSE CODE | 05BA0103 |
| COURSE CREDITS | 4 |

Objective:

- 1 Explore diverse animation techniques and styles, focusing on stop motion.
- 2 Develop ideation and imagination skills through hands-on stop motion animation projects.
- 3 Gain practical experience in material exploration and utilization in animation.
- 4 Learn and apply various stop motion tricks and techniques to enhance animation quality.
- 5 Master the process of concept building and project execution in stop motion animation.

Course Outcomes: After completion of this course, student will be able to:

- 1 Acquire comprehensive knowledge about various materials utilized in animation, ranging from traditional clay and paper to modern digital mediums.
- 2 Demonstrate a strong understanding of stop motion animation principles and techniques.
- 3 Develop the ability to create compelling stop motion animations using a variety of materials.
- 4 Master the skills necessary for concept development, storyboarding, and production planning in stop motion.
- 5 Gain proficiency in post-production techniques for editing sound design and visual effects in stop motion animation.

Pre-requisite of course:No Requirement

Teaching and Examination Scheme

| Theory Hours | Tutorial Hours | Practical Hours | ESE | IA | CSE | Viva | Term Work |
|------------------------|-----------------------|------------------------|------------|-----------|------------|-------------|----------------------|
| 0 | 0 | 8 | 0 | 0 | 0 | 50 | 50 |
| Contents : Unit | Topics | | | | | | Contact Hours |
| Total Hours | | | | | | | |

Suggested List of Experiments:

| Contents : Unit | Topics | Contact Hours |
|------------------------|---|----------------------|
| 1 | Introduction to Material Animation and Stop Motion Types of Animation (traditional, digital, stop motion), History and evolution of stop motion animation, Understanding the principles of animation (timing, spacing, squash and stretch, etc.), Introduction to different materials used in stop motion (clay, paper, puppets, found objects). Setting up a basic stop motion animation workspace | 30 |

Suggested List of Experiments:

| Contents : Unit | Topics | Contact Hours |
|--------------------|---|------------------|
| 2 | Material Exploration and Preparation Exploring the properties of different materials and their suitability for stop motion animation, Techniques for preparing materials for animation (armature building, texturing, painting), Creating characters and sets using various materials. Understanding scale and proportion in stop motion, Using lighting to enhance the visual appeal of materials. | 30 |
| 3 | Stop Motion Tricks and Techniques Basic stop motion animation techniques (replacement animation, pixilation, cut-out animation), Advanced stop motion techniques (motion blur, time-lapse, compositing), Using armatures and rigs for character animation. Creating realistic movement and expressions, Incorporating special effects into stop motion animation (fire, water, explosions). Troubleshooting common stop motion animation problems | 30 |
| 4 | Concept Building and Project Execution Developing a concept for a stop motion animation project, Storyboarding and pre-visualization techniques. Scriptwriting and character development. Production planning and scheduling, Directing and animating a stop motion project from start to finish. Post-production techniques (editing, sound design, visual effects). Showcasing and sharing stop motion animation projects | 30 |
| Total Hours | | 120 |

Textbook :

- 1 Drawing on the Right Side of the Brain (The Definitive, 4th Edition), Betty Edwards, Tarcher, 2012

References:

- 1 Stop Motion: Craft Skills for Model Animation, Stop Motion: Craft Skills for Model Animation, Susannah Shaw, Routledge, 2017
- 2 Animating with Stop Motion Pro, Animating with Stop Motion Pro, Mark Sawicki, Focal Press, 2010
- 3 The Stop Motion Handbook: Using GarageBand and iStopMotion, The Stop Motion Handbook: Using GarageBand and iStopMotion, Craig Lauridsen, Acumen Publishing, 2011

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery

| Remember / Knowledge | Understand | Apply | Analyze | Evaluate | Higher order Thinking / Creative |
|-----------------------------|-------------------|--------------|----------------|-----------------|---|
| 20.00 | 30.00 | 25.00 | 15.00 | 10.00 | 0.00 |

Instructional Method:

- 1 Board Work, PPT, Practical

Supplementary Resources:

- 1 Proko (<https://www.proko.com/>)
- 2 Line of Action (<https://line-of-action.com/>)
- 3 <https://stopmotioncentral.com>
- 4 <https://www.stopmotionanimation.com>
- 5 <https://www.aardman.com/our-work/>