

COURSE TITLE	ANIMATION PRINCIPLES & DESIGNING RULES
COURSE CODE	05MA0201
COURSE CREDITS	6

Objective:

- 1 Understand the fundamental principles of animation.
- 2 Learn and apply design rules for effective visual communication.
- 3 Develop skills in character design and animation techniques.
- 4 Create engaging and visually appealing animated content.
- 5 Learn techniques for concepts of design.

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

- 1 Students can demonstrate a strong understanding of the principles of animation.
- 2 Students can effectively apply design rules to create visually appealing animations.
- 3 Students can design characters and animate them using appropriate techniques.
- 4 Students can analyze and critique animation based on its adherence to principles and design rules.
- 5 Students can apply creative problem-solving skills in design.

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
6	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	UNIT 1 Principles of Animation - Introduction to the 12 principles of animation (squash and stretch, anticipation, staging, straight ahead action and pose to pose, follow through and overlapping action, slow in and slow out, arc, secondary action, timing, exaggeration, solid drawing, appeal).	15
2	UNIT 2 Understanding how these principles create believable and engaging animation. - Applying animation principles to basic movements and actions. - Analyzing examples of animation to identify and critique the use of these principles.	15

Contents : Unit	Topics	Contact Hours
3	UNIT 3 Principles of visual design Balance – Distribution of visual weight (symmetrical, asymmetrical, radial). Contrast – Use of differences (color, size, texture) to create emphasis., Emphasis – Drawing attention to the most important element. Movement – Guiding the viewer’s eye through the design. Rhythm – Repetition of elements to create visual tempo or flow.	15
4	UNIT 4 Unity – Overall cohesion; everything feels like it belongs together. Variety – Use of different elements to create interest. Proportion – Relative size and scale of elements. Alignment – Placement of elements to create order and organization. Whitespace (Negative Space) – Space around elements; improves readability and focus.	15
5	UNIT 5 Primary Colors – Red, Blue, Yellow (cannot be made by mixing other colors).Secondary Colors – Green, Orange, Purple (mix of two primary colors).Tertiary Colors – Made by mixing a primary with a neighboring secondary color. Hue – The name of a color (e.g., red, blue).Value – Lightness or darkness of a color. Saturation (Intensity) – Brightness or dullness of a color. Warm Colors – Red, orange, yellow (energetic, advancing).Cool Colors – Blue, green, purple (calming, receding).Complementary Colors – Opposite on the color wheel (e.g., red & green); high contrast.Analogous Colors – Next to each other on the color wheel; harmonious. Monochromatic – Variations in lightness and saturation of a single hue. Triadic Colors – Three colors evenly spaced on the color wheel (e.g., red, yellow, blue).Split-Complementary – A base color plus the two adjacent to its complement. Color Temperature – Perception of warmth or coolness in a color. Color Harmony – Pleasing arrangement of colors based on relationships.	15
6	UNIT 6 Character design principles (shape language, silhouette, expression). - Creating visual hierarchy and guiding the viewer's eye. - Understanding the impact of design choices on the overall message and effectiveness of the animation. - Case studies of effective and ineffective design in animation.	15
Total Hours		90

Textbook :

- 1 Cartoon Animation, Preston Blair, Walter Foster Publishing, 1994
- 2 Timing for Animation, Harold Whitaker and John Halas, Focal Press (an imprint of Routledge), 1981

References:

- 1 The Animator’s Survival Kit, The Animator’s Survival Kit, Richard Williams, Faber & Faber, 2001

References:

- 2 Principles of Animation: The Illusion of Life, Principles of Animation: The Illusion of Life, Frank Thomas & Ollie Johnston, Disney Editions, 1981

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
10.00	20.00	25.00	25.00	10.00	10.00

Instructional Method:

- 1 PPT, Board work,