UNIVERSITI TEKNOLOGI MARA

FFA231: MECHANICS OF MOTION

Course Name (English)	MECHANICS OF MOTION APPROVED
Course Code	FFA231

MQF Credit	3

Course Description	This course enable students to study the underlying principles of animation and animation timing that are common to all forms of animation. Students are required to recognize and exposed to the principles of animation and its functions to the subject matter. Students are also expected to apply the knowledge to construct and study the problem pertains in designing motion for animation. This course must be conducted using 2D traditional animation.

Transferable Skills	Identify the underlying principles of animation and animation timing that are common to all forms of animation. Recognize and exposed to the principles of animation and its functions in developing animaition. Apply the knowledge to construct motion in 2D traditional animation

Teaching Methodologies	Lectures, Practical Classes

CLO	CLO1 Explain the mechanics of motion and principles of animation that need to be apply in all forms of animation CLO2 Acknowledge the principles of animation as a fundamental aspect in animation through analyses of physical body movements CLO3 Apply the basic principles of animation and understanding of body movements through any animation techniques with selected references

Pre-Requisite Courses	No course recommendations

Topics
1. Introduction to the principles of animation 1.1) n/a
2. Law of Motion: Inertia and constant acceleration 2.1) n/a
3. Timing in animation: Basic Timing 3.1) n/a
4. Timing in animation: Pacing & Phrasing 4.1) n/a
5. Squash and Stretch 5.1) n/a
6. Key and in betweens 6.1) n/a
7. Key and in betweens 2 7.1) n/a
8. Pose to pose and straight ahead animation 8.1) n/a
9. Overlapping Action, Follow Through, Drag 9.1) n/a
10. Arcs : Curves and Line of Actions 10.1) n/a

11. Cycle animation: Wave and Flag Cycle 11.1) n/a
12. Walk cycle: Basic Human Figure Construction 12.1) n/a
13. Walk cycle: Timing a walk 13.1) n/a
14. Final Portfolio Presentation & Assessment 14.1) n/a

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Indv assignments	30%	CLO1
Assignment	Group assignments	30%	CLO2
Group Project	Final Project	40%	CLO3

Reading List	**Recommended Text**	• **Williams, Richard 2001, *The Animator's Survival Kit*, Faber & Faber Ltd**
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	