



UNIVERSITI TEKNOLOGI MARA

FAB541: DIGITAL VISUAL EFFECTS

Course Name (English)	DIGITAL VISUAL EFFECTS APPROVED
Course Code	FAB541
MQF Credit	3
Course Description	Students will learn the digital visual effects or also known as computer generated imagery (CGI) of digital effects which include the brief history of visual effects, basic concept of gravity, dynamics, particles, reactor: rigid body and deformation: soft body, shader and rendering elements. These concepts are imperative in the making of fine 3D animation and realistic look elements such as water, wind, explosions, vibration, dust and smoke, motion blur and depth of field.
Transferable Skills	Apply numerical skills to interpret, use and analyse information and subject matter Undertake independent and self-directed study and learning digital visual effects Work safely and accurately within time management constraints
Teaching Methodologies	Lectures, Studio, Tutorial
CLO	CLO1 Discuss the concept of gravity and logic of the real world into the application of computer animation. CLO2 Demonstrate the application of visual effects in relation to the basic film logic in computer animation. CLO3 Adapt the essential elements in computer generated imagery in order to produce a convincing outcome of computer animation.
Pre-Requisite Courses	No course recommendations
Topics	
1. Week 1 - Course Briefing & Introduction 1.1) Brief history of digital visual effects. 1.2) Introduction of After Effects Interfere	
2. Week 2 - Basic concept of gravity 2.1) Water Fountain	
3. Week 3 - Dynamics & Particles I 3.1) Water pouring effect.	
4. Week 4 - Dynamics & Particles II 4.1) Particle Dispersion Effect.	
5. Week 5 - Dynamics & Particles III 5.1) Dust and smoke dispersion effect.	
6. Week 6 - Reactor: rigid body I 6.1) Superhero Cape	
7. Week 7 - Reactor: rigid body II 7.1) Physical Simulation 7.2) Collision	
8. Week 8 - Deformation: Soft Body I 8.1) Spring/mass models	
9. Week 9 - Deformation: Soft Body II 9.1) Cloth simulation	
10. Week 10 - Rendering I 10.1) Mental Ray Shader & Materials	

11. Week 11 - Rendering 2 11.1) Lights, Sun, Lens Flare
12. Week 12 - Rendering 3 12.1) Reflection, Motion Blur, Depth of Field
13. Week 13 - Discussion and tips 13.1) Discussion on overall topics and consultation on final project.
14. Week 14 - Final Presentation 14.1) Final Project Submission & Presentation.

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Visual effects individual tutorials by discussing after weekly lectures.	30%	CLO1
	Assignment	Visual effects assignments by creating a new scene using dynamic and reactor.	30%	CLO2
	Final Project	Presentation on final project by creating a convincing outcome of VFX.	40%	CLO3

Reading List	Recommended Text	<ul style="list-style-type: none"> • Rickitt, Richard 2000, <i>Special Effects: History & Technique</i>, Watson-Guption Publication • Kerlow, Isaac V 2003, <i>The Art of 3D Computer Animation & Effects</i>, John Wiley & Son Inc • Brinkman, R 1999, <i>The Art and Science of Digital Compositing</i>, Ap Professional London • Hamilton. J 1998, <i>The Art and Science of Digital Compositing</i>, Dorling Kindersley London • Smith, T.G 1986, <i>Industrial Light & Magic: The Art of Special Effects</i>, Columbus London
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	