



## UNIVERSITI TEKNOLOGI MARA

### CTA543: DIGITAL VISUAL EFFECT

<b>Course Name (English)</b>	DIGITAL VISUAL EFFECT <b>APPROVED</b>
<b>Course Code</b>	CTA543
<b>MQF Credit</b>	3
<b>Course Description</b>	Students will learn the computer generated imagery 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. This course works in collaboration with 3D Computer Animation: Intermediate course in the final project.
<b>Transferable Skills</b>	1. Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts. 2. Demonstrate analytical skills using technology. 3. Demonstrate professional skills, knowledge and competencies.
<b>Teaching Methodologies</b>	Lectures, Blended Learning, Computer Aided Learning
<b>CLO</b>	CLO1 Adapt the concept of gravity and logic of the real world into the application of computer animation CLO2 Analyse the essential elements in computer generated imagery in order to produce a convincing outcome of digital filmmaking CLO3 Demonstrate the application of visual effects in relation to the basic film logic
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Course Briefing &amp; Introduction</b> 1.1) Brief history of digital visual effect	
<b>2. Basic concept of gravity</b> 2.1) Gravity and visual effects	
<b>3. Dynamics &amp; Particles</b> 3.1) Creating Dynamics & Particles 1	
<b>4. Dynamics &amp; Particles</b> 4.1) Creating Dynamics & Particles 2	
<b>5. Dynamics &amp; Particles</b> 5.1) Creating Dynamics & Particles 3	
<b>6. Reactor</b> 6.1) Rigid body 1	
<b>7. Reactor</b> 7.1) Rigid body 2	
<b>8. Deformation</b> 8.1) Soft body 1	
<b>9. Deformation</b> 9.1) Soft body 2	
<b>10. Mental Ray Shader &amp; Materials</b> 10.1) Shaders & Materials	

<b>11. Lights, Sun, Lens Flare</b> 11.1) Functions and technical aspects
<b>12. Reflection, Motion Blur &amp; Depth of Field</b> 12.1) Functions and technical aspects
<b>13. Final Project Presentation 1</b> 13.1) Final Project Presentation 1
<b>14. Final Project Presentation 2</b> 14.1) Final Project Presentation 2

Assessment Breakdown	%
Continuous Assessment	60.00%
Final Assessment	40.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Individual Assignment 1	15%	CLO1 , CLO2
	Assignment	Individual Assignment 2	15%	CLO1 , CLO2
	Assignment	Group Assignment	30%	CLO1 , CLO2 , CLO3

Reading List	Recommended Text	• Rickitt, Richard 2000, <i>Special Effects: History &amp; Technique</i> , Watson-Guption Publication
	Reference Book Resources	<ul style="list-style-type: none"> <li>• Kerlow, Isaac V 2003, . <i>The Art of 3D Computer Animation &amp; Effects</i>, John Wiley &amp; Son Inc</li> <li>• Brinkman, R 1999, <i>The Art and Science of Digital Compositing</i>, Ap Professional London</li> <li>• McCarthy, Robert 1992, <i>Secrets of Hollywood Special Effects</i>, Focal Press USA</li> <li>• Pinteau, Pascal &amp; Hirsch, Laurel 2005, <i>Special Effects: An Oral History</i>, Harry N. Abrams. Publication USA</li> </ul>

<b>Article/Paper List</b>	This Course does not have any article/paper resources
<b>Other References</b>	This Course does not have any other resources