Course Name (English)	SPECIAL EFFECTS IN GAME DESIGN APPROVED
Course Code	CGD553

MQF Credit	3

Course Description	Understanding the importanty of special effects in game design and how it differs from other techniques.

Transferable Skills	Organizational, Teamwork, Technology Literacy

Teaching Methodologies	Lectures, Blended Learning, Self-directed Learning, Project-based Learning

CLO	CLO1	Distinguish the context and the foundation concepts, algorithms, techniques and applications of visual special effects (C2, PO1)
	CLO2	Select visual special effects techniques appropriate for particular applications (P1, PO2)
	CLO3	Display visual special effects knowledge onto a team game project (A5, PO3)

Pre-Requisite Courses	No course recommendations

Topics
1. Introduction to Visual Effects   1.1) N/A
2. Designing Visual Effects   2.1) N/A
3. Visual Effects Tools and Advanced Functions   3.1) N/A
4. Animation in Game Engine   4.1) N/A
5. Dynamic Particle Illusions   5.1) N/A
6. Motion Graphic Design   6.1) N/A
7. Overview to Visual Effects Programming Applications   7.1) N/A
8. Geometric Representation   8.1) N/A
9. Principles of Animation   9.1) N/A
10. Language of Film/Animation   10.1) N/A
11. Image Synthesis, Lighting and Rendering for Videogames   11.1) N/A
12. Environment Modeling   12.1) N/A
13. Ethics and Future of Visualization Industry   13.1) N/A
14. Final Presentation   14.1) N/A

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Group Project	Develop visual special effect for a game.	50%	CLO3
	Individual Project	Identify the factors that influence the sucessfulness of visual special effects.	20%	CLO1
	Individual Project	Develop visual special effect for a selected application.	30%	CLO2

Reading List	Recommended Text	• **Trish & Chris Meyer 2010,** *Creating Motion Graphics with After Effects: Essential and Advanced Techniques, 5th Edition, Version CS5*, 5th Ed., Routledge [ISBN: 978-024081415] • **Richard Yot 2019, •** *Light for Visual Artists: Understanding and using light in art and design, Richard Yot, Laurence King Publishing* , 1st Ed., Laurence King Publishing [ISBN: 978-178627451] • **Chad Perkins 2012,** *The After Effects Illusionist: All the Effects in One Complete Guide,* 2nd Ed., Routledge [ISBN: 978-02408189] • **Steve Wright 2011,** *Compositing Visual Effects, Second Edition: Essentials for the Aspiring Artist*, Focal Press [ISBN: 978-024081781]
	Reference Book Resources	• **Lisa Fridsma, Brie Gyncild 2017,** *Brie Gyncild*, 1 edition (January 1, 2017) Ed., Adobe Press [ISBN: 978-01346653] • **Jon Gress 2014,** *[digital] Visual Effects and Compositing*, 1 Ed., New Riders; [ISBN: 978-032198438]
Article/Paper List		This Course does not have any article/paper resources
Other References		This Course does not have any other resources