



UNIVERSITI TEKNOLOGI MARA

CGD544: THREE DIMENSIONAL GAME DEVELOPMENT

Course Name (English)	THREE DIMENSIONAL GAME DEVELOPMENT APPROVED
Course Code	CGD544
MQF Credit	4
Course Description	This course gives opportunities to students to develop 3-dimensional games by applying the fundamental of 3D game elements and models. The basic principles of 3D games are reviewed and applied, including character development and story conception through production. Students will design the 3D game concepts with the use of several types of 3D game software's.
Transferable Skills	Communication Teamwork Technology literacy Adaptability
Teaching Methodologies	Lectures, Blended Learning, Studio, Demonstrations, Tutorial, Computer Aided Learning, Project-based Learning
CLO	CLO1 Apply the fundamental of 3D game elements (C3, PO1). CLO2 Design and develop 3D game concepts (P7, PO7). CLO3 Practice several types of 3D game software's (A5, PO6).
Pre-Requisite Courses	No course recommendations
Topics	
1. Developing 3D Game Concept 1.1) N/A	
2. Developing 3D Game Character 2.1) N/A	
3. Developing 3D Game Gameplay 3.1) N/A	
4. Execute Game Development Through Appropriate Software's and Platform 4.1) N/A	
5. Level design in various game genres 5.1) N/A	
6. Building terrain, architecture and spaces 6.1) N/A	
7. Lighting and atmospheric effects 7.1) N/A	
8. Placing encounters 8.1) N/A	
9. Playtesting 9.1) N/A	
10. Final Presentation 10.1) N/A	

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Understanding the fundamental elements and technique in 3D games design.	30%	CLO1
	Final Project	Develop 3D games	50%	CLO2
	Simulation Evaluation	Develop a 3D environment for related games	20%	CLO3

Reading List	Reference Book Resources	<ul style="list-style-type: none"> • Sue Blackman 2013, <i>Beginning 3D Game Development with Unity 4: All-in-one, multi-platform game development (Technology in Action)</i>, 2nd Ed., Apress [ISBN: 978-143024899] • Clayton E. Crooks 2004, <i>Awesome 3D Game Development</i>, 1st Ed., Charles River Media [ISBN: 1584503254] • Luke Ahearn 2016, <i>3D Game Textures: Create Professional Game Art Using Photoshop</i>, 4th Ed., A K Peters/CRC Press [ISBN: 978-113892006] • Marwan Ansari, <i>!!!Book Not Found</i>, 1st Ed., A K Peters/CRC Press [ISBN: 978-11384286] • Paris Buttfield-Addison 2019, <i>Unity Game Development Cookbook: Essentials for Every Game</i>, O'Reilly Media [ISBN: 978-149199915] • Chris Strom 2018, <i>3D Game Programming for Kids: Create Interactive Worlds with JavaScript</i>, 2nd Ed., Pragmatic Bookshelf [ISBN: 978-16805027] • Adam Watkins 2018, <i>Creating Games with Unity and Maya: How to Develop Fun and Marketable 3D Games</i>, Focal Press [ISBN: 978-024081881]
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	