MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Game Design Fundamentals
2 .	**Course Code**	TGD3141
3 .	**Type of Course** (e.g. : Core, major, elective etc.)	Specialization Core
4 .	**Synopsis**	Game Design Fundamentals covers the fundamentals of game design in creating game. It provides students with an understanding of game prototyping and pre-production stage in game development.
5 .	**Version** (State the date of theSenate's approval - previous and the current approval date)	Current: January 2018 Previous: June 2016
6 .	**Name(s) of Academic Staff**	Quek Albert
7 .	**Semester and Year Offered**	Trimester 2 (gamma)
8 .	**Credit Value**	4
9 .	**Pre-Requisite**	TCP1201 Object Oriented Programming & Data Structures
10 .	**Objective of the course in the programme:**	
	To equip students with the fundamental knowledge of game design and ability to create basic game mechanics using scripting language.	
11 .	**Justification for including the course in the programme:**	
	To provide students with fundamental game design knowledge and game scripting skills.	

12 .	**Course Learning Outcomes (CLO)**	**Domain**	**Level**
CLO1:	Identify the fundamental concepts of game design.	Cognitive	1
CLO2:	Construct basic game play rules using scripting language.	Cognitive	3
CLO3:	Experiment with basic game mechanics through game prototyping.	Cognitive	4
CLO4:			

13 . **Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment:**

Course Learning Outcomes (CLO) (Must tally with CLOs in item 12)	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	Teaching Methods	Assessment Method
CLO1							✓						Lecture/Practical	Test
CLO2								✓					Lecture/Practical	Project
CLO3									✓				Lecture/Practical	Assignments
CLO4														
Total							1	1	1				*Indicate the relevancy between the CLO and PLO by ticking "✓" the appropriate relevant box (This description must be read together with standards 2.1.2, 2.2.1, and 2.2.2 in Area 2 – pages 16 & 18 of COPPA 2.0)*	

14 .	**Transferable Skills:**
	Leadership, Motivation, Time management, Prioritisation, Delegation, Communication, Critical thinking

15 . **Distribution of Student Learning Time (SLT)**

Course Content Outline	**CLO	Teaching and Learning Activities Guided Learning (F2F)*				Guided Learning (NF2F)*	Independent Learning (NF2F)*	Total SLT
		*L	*T	*P	*O			
1 **Overview of Game Design and Development** The basic idea of game design; evolution of games; learning game design, common term in game design; Introduction to pre-production, production and post-production.	1	2				2	2	6
2 **Elements of Game Implementations** Common components of a game. Typical control methods; Serious game and storytelling; Character design; The importance of artwork and audio and musical composition; The reward system secrets and bonuses; Screen design and user interface specifications.	3	3		2		2	5	12
3 **Game Analysis** Differences in game platforms; Detailed analysis of game types; Application of exposure to game design; Strategies and techniques in gameplay; Leveling of the game (game level); The learning curve in games; Game design in the commercial games industry.	1	3				2	3	8
4 **Game Genres** Different requirements of each genre; Description of various games genres; Hybrid and enhanced of existing games genres; Getting ideas and brain storming; A mapping concept through alpha prototyping.	1	3		2		2	5	12
5 **Visualizing the Game in 2D** Art specifications for 2D game; Creating graphics for 2D game; Introduction to the 2D and 3D art to game design character; Drawing 2D art to the screen; 2D art tasks; Specifications and design for 2D game. Working with 2D sprites and animations.	3	3		5		2	8	18

No	Topic						
6	**Visualising the Game in 3D** Art specifications for 3D game; Creating graphics for 3D game; Introduction to the 3D art to game design character; Drawing 3D art to the screen; 3D art tasks; 3D modelling the environment of game.	3	3	5	2	8	18
7	**Audio and Sound in Game** The functions of audio in game; Music in game; Sound effects in game. Voices in game; Creating sound and music for the game; Sound and music specifications.	2	3	5	2	8	18
8	**Implementing the Game** Coding Overview; Game engine modules; Working with tile-based engine; Non-programming and other programming tasks; Determining and creating a game flow specification; Directing parts of the games based on the game flow specification; Determining the success of the game design.	2	4	5	2	9	20
						Total SLT	**112**

SUMMATIVE ASSESSMENT

1. Continuous Assessment	Percentage %	Total SLT
Test	25%	10
Assignments	35%	18
Project	40%	20
Total SLT for Continuous Assessment		**48**

2. Final Assessment	Percentage %	Total SLT	
		F2F	ILT
Final Exam		0	0
Total SLT for Final Assessment (F2F + NF2F)		**0**	

Grand Total	**100%**	**160**

**Indicate the CLO based on the CLO's numbering in Item 12.
*L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face

16 . **Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):**
Game Development Lab

17 . **Main References:**
Moore, M.E. Game Design and Development: Introduction to the Game Industry .Pearson-Prentice Hall, 2006.

18 . **Additional References:**
Adams. (2014). Fundamentals of Game Design (3rd ed.). New Riders.
Rouse, (2004). Game Design Theory and Practice(2nd ed.). USA: Wordware Publishing.

Note:

	Cells shaded light grey contain formulas / fixed values. Edit these formulas only if needed.