Lovely Professional University, Punjab

Course Code	Course Title	Course Planner	Lectures	Tutorials	Practicals	Credits
INT208	COMPUTING PRACTICUM-I	17671::Gurpreet Singh	0	0	3	2
Course Weightage	ATT: 5 CAP: 45 ETP: 50	**Exam Category: X6: Mid Term Exam: Not Applicable – End Term Exam: Practical**				
Course Orientation	PLACEMENT EXAMINATION(Mass Recruiters), SKILL ENHANCEMENT, SOFTWARE SKILL					

Course Outcomes :Through this course students should be able to

CO1 :: apply 2D modelling concept for game making process

CO2 :: develop animation and process for game development

CO3 :: construct and develop game design through story telling

CO4 :: use game assets to execute the production of a game

	Reference Books (R)		
Sr No	**Title**	**Author**	**Publisher Name**
R-1	BUILDING A GAME WITH UNITY AND BLENDER	LEE ZHI ENG	PACKT PUBLISHING

Other Reading (OR)	
Sr No	**Journals articles as Compulsary reading (specific articles, complete reference)**
OR-1	https://mrl.nyu.edu/~perlin/courses/fall2010/gamedesignbasics.pdf ,

Relevant Websites (RW)		
Sr No	**(Web address) (only if relevant to the course)**	**Salient Features**
RW-1	https://unity3d.com/learn/tutorials/s/2d-game-creation	Sprite editor and 2D Physics
RW-2	https://www.gimp.org/tutorials/The_Basics/	Logo design and adding text
RW-3	https://www.gimp.org/tutorials/	Basics of layers masking and image effects

Audio Visual Aids (AV)		
Sr No	**(AV aids) (only if relevant to the course)**	**Salient Features**
AV-1	https://unity3d.com/learn/tutorials/topics/graphics/models-and-materials	Modelling
AV-2	https://www.youtube.com/watch?v=jrVnI3l9fgE	basics of layers

Detailed Plan For Practicals

Practical No	Broad topic	Subtopic	Other Readings	Learning Outcomes
Practical 1	Working on layer based system	Working on layers	RW-3 AV-2	Student will understand basic concepts of working on different layers for game designing
	Working on layer based system	Creating GUI		Student will understand basic concepts of working on different layers for game designing
Practical 2	Working on layer based system	Environment texturing		Students will create texture for game creation
Practical 3	Working on layer based system	Logo design	RW-2	Students will learn to design logo which is required for game creation
Practical 4	Game Designing	Basics of Game Designing	OR-1 AV-1	Students will understand the basic of game design after animation
Practical 5	Game Designing	Games And Designing Pattern		Students will apply techniques and methods of design pattern and elements of games
Practical 6	Game Designing	Formal Elements of Games		Students will apply techniques and methods of design pattern and elements of games(Practical Evaluation 1)
Practical 7	Game Designing	Mechanics		Student will understand constructs of rules or methods designed for interaction with the game state
Practical 8	Game Designing	Early Stage of the Design Process	RW-1	Students will starting creating preliminary design of 2D game process with a idea
	Game Designing	Generate Ideas		Students will starting creating preliminary design of 2D game process with a idea
Practical 9	Game Designing	Games And Arts		Students will apply storytelling ideas to dig deep into the characters in the game
	Game Designing	Storytelling		Students will apply storytelling ideas to dig deep into the characters in the game
Practical 10	Game Designing	Sprite Editor	RW-1	Students will understand sprite concept and will learn to render sprite type images
	Game Designing	Sprite Type	RW-1	Students will understand sprite concept and will learn to render sprite type images
	Game Designing	Sprite Renderer	RW-1	Students will understand sprite concept and will learn to render sprite type images
Practical 11	2D Physics	Collider 2D		Students will understand about unity 2D physics engine with collider and rigid body component
	2D Physics	Rigid body 2D	RW-1	Students will understand about unity 2D physics engine with collider and rigid body component

Practical 12	2D Physics	Area Effector 2D	RW-1	Students will learn about area Effector 2D component which allows to add 2D physics forces to objects which enter a trigger volume(Practical Evaluation 2)
Practical 13	2D Physics	Bouncing and Sliding 2D	RW-1	Students will understand about basics of 2D point effector , bouncing effect and hinge joint component which allows to add 2D physics forces to objects in unity
	2D Physics	Point Effector 2D	RW-1	Students will understand about basics of 2D point effector , bouncing effect and hinge joint component which allows to add 2D physics forces to objects in unity
	2D Physics	Hinge joint 2D	RW-1	Students will understand about basics of 2D point effector , bouncing effect and hinge joint component which allows to add 2D physics forces to objects in unity
Practical 14	2D Physics	Distance Joint 2D	RW-1	Students will learn about use of distance joint component in game design which allows a sprite controlled by 2D Physics to rotate around a point
	Design playable prototype	Build 2D game		Students will create playable version of the game and testing is performed
	Design playable prototype	Testing		Students will create playable version of the game and testing is performed
	SPILL OVER			
Practical 15	Spill Over			