

MTD368 Game Design and Development

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JAN

Synopsis:

MTD368 Game Design and Development aims to equip students with the ability to create game applications through the use of Unity, a game engine for the development of game applications. It provides an introduction on game design and development concepts. The course covers Unity game engine's capabilities and a range of topics from games physics to user interface. Game mechanics and gameplay concepts will be applied in building 2D and 3D games. Through exercises, the students will gain hands-on programming experience with the Unity game engine and will be able to develop basic 2D and 3D games.

Topics:

- Introduction to Game, Game Genres and Game World
- Game Design and Gameplay
- Basics of Unity 3D Development
- Unity User Interface
- Games Architecture and Game Design Document (GDD)
- Game Object Creation and Manipulation
- Creating a Simple Game
- Lightings, Cameras and Physics
- Creating a 2D Game
- Graphical User Interface (GUI)
- Creating a 3D Game
- Improving Designs

Learning Outcome:

- Appraise the different game genres.
- Apply game design concepts in game development.
- Analyse the gameplay mechanics and game balance.
- Employ camera and lighting controls, and GUI implementation in game design.
- Design a 2D game using programming to control the game events.
- Create and develop scripts for building a 3D game.

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
TUTOR-MARKED ASSIGNMENT	15
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Sub-Total	30

Examinable Component	Weightage (%)
ECA	70

Sub-Total	70
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Weightage Total **100**