

Curriculum for the course of

# **GAME DEVELOPMENT**

Course Instructor – Banoshree Bose

## Learning Objectives

This course will provide a basic hands-on walkthrough about creating a 3D game in Unity Game Engine. It covers topics such as environment design, level design, basic animation setup, gameplay programming and UI scripting.

## Learning Outcomes

At the end of the course participants should be able to -

- Set up a 3d environment
- Design levels for a 3d game
- Create animation blend trees
- Program the workflow of a game
- Create a basic score and button UI for a game

## Prerequisites

The student must have some programming background. A little prior knowledge of C# programming and OOP will be beneficial.

## Schedule

Introduction to Game Engines and downloading unity	1 class
Introduction to Unity UI; Adding Gameobjects; Creating Materials	1 class
Introduction to unity asset store and importing assets; basic level design; adding skybox; setting up camera	3 classes
Introduction to scripts; creating basic movement scripts; introduction to movement inputs	2 classes
Introduction to lighting	1 class
Introduction to terrains	3 classes
UI programming for game	4 classes
Introduction to characters in unity	1 class
Animation Tree Programming	5 classes
Adding basic animation to characters	3 classes
Creating a score and highscore system, introduction to playerprefs	1 class
Creating timer, play, pause, exit	1 class
Deploying the game	3 classes
Total classes	29 classes

