Curriculum for the course of

GAME DEVELOPMENT

Course Instructor –

**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, game play 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**

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| --- | --- | --- | --- |
| **No** | **Topic** |  | **Total hours** |
| 1 | Introduction to Game Engines and downloading unity | 1 class |  |
| 2 | Introduction to Unity UI; Adding Game objects; Creating Materials | 1 class |  |
| 3 | Introduction to unity asset store and importing assets; basic level design; adding skybox; setting up camera | 3 class |  |
| 4 | Introduction to scripts; creating basic movement scripts; introduction to movement inputs | 2 class |  |
| 5 | Introduction to lighting | 1 class |  |
| 6 | Introduction to terrains | 3 class |  |
| 7 | UI programming for game | 4 class |  |
| 8 | Introduction to characters in unity | 1 class |  |
| 9 | Animation Tree Programming | 5 class |  |
| 10 | Adding basic animation to characters | 3 class |  |
| 11 | Creating a score and high score system, introduction to playerprefs | 1 class |  |
| 12 | Creating timer, play, pause, exit | 1 class |  |
| 13 | Deploying the game | 3 class |  |

**CURRICULUM**

1. **Introduction**