Tilak Maharashtra Vidyapeeth, Pune

BFA- Game Design

Program OutcomeBFA- Game Design

- **Proficiency:** To possess a basic understanding of the different activities that is part of game design;
- **Attitude and approach:** To know how to approach fleshing out a game idea in order to increase the chances to having a successful game design experience;
- **Team Spirit:** To get an understanding of Game design in terms of to work with game developers;

Programme Educational Objective

- To develop the ability to produce a Game Design for Contemporary Game Industry;
- To Widen the Scope of Performance in different sectors of game design development;
- To Provide vast and Deep Practical exposure to the Game Industry;

Course Outcome

FIRST YEAR

Semester I – (Common Subjects for BFA –Animation, VFA, Game Design)

Semester II

Human Computer Interaction (PR)

- Students will learn human-computer interfaces principle for games
- Student will learn methods of control and forms of feedback in games
- Student will Prototype an interface for a game using HCI techniques

2D Game Asset Creation (PR)

- Students will learn to create 2D Assets for Game using Photoshop
- Student will learn to create 2D Background for Game using Photoshop
- Student will learn to create sprite sheet for Game using Photoshop

3D Modelling and Texturing (PR)

- Student will introduced to 3D software
- Students will learn to create 3D Assets for Game using Maya
- Student will learn basic techniques of UV Mapping
- Student will learn to texture 3D game assets

Research Techniques for Game Production (PR)

- Student will learn Nature and purposes of research
- Students will learn Prepare pre-production documentation

Photoshop Theory (TH)

- Student will learn basic concept of Photoshop
- Student will learn definition of tools used in Photoshop
- Student will understand usages of Photoshop for Game development

Photography Basic (TH)

- Students will understand how to build resource library for camera
- Students will learn usage of light and shadow
- Students will learn exposure triangle and IOS sensitivity.
- Students will learn Shutter speed and Aperture.

SECOND YEAR

Semester II

Computer Game Design (PR)

- Student will Understand the principles of game design
- Student will learn to create Game Design Document
- Student will learn to create MDA Analysis Document
- Student will create Board Game prototype to showcase Game Design skill

Computer Game Engines (Intro to Unity3D) (PR)

- Student will introduce to Game Engine (Unity 3D)
- Student will learn 2D Game Assets integration with Unity
- Student will learn 3D Game Assets integration with Unity
- Student will learn unity Lighting

2D Character Creation and Animation for Game (PR)

- Students will learn to create Character Concept
- Students will learn to create 2D Character for Game using Photoshop
- Student will learn to create 2D Character Animation for Game using Photoshop and Spriter
- Student will learn to create 2D Character Sprite sheet for Game using Photoshop

3D Asset Creation for PC Game (PR)

- Students will learn to create Low and High poly modelling for Game
- Student will learn to create different texture Maps for Game (Normal, Occlusion and etc…)
- Student will introduce to sculpting software to created detail Assets for Game

Maya Theory (TH)

- Student will learn basic concept of Maya
- Student will learn definition of Modelling tools used in Maya
- Student will learn definition of UV Mapping and texturing tools used in Maya

UI Design (PR)

- Student will learn to create UI Design for PC Games
- Student will learn to create UI Design for Mobile Games
- Student will learn to Create UI Design for AR and VR

Semester IV

3D Character Creation for Game (PR)

- Students will learn to create Low and High poly character modelling for Game
- Student will learn to create different texture Maps for Character (Normal, Occlusion and etc…)
- Student will use sculpting tool to add details to Game Character

Computer Game Design for Mobile Platforms (PR)

- Student will Understand Game design for mobile platforms
- Student will learn to create Level Design, and Technical Design Documentation
- Student will Design 2D Game for Mobile Platforms (Android)
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Computer Game Engine (Level Design) (PR)

- Student will understand responsibility of level designer in Game industry
- Student will learn level design for 2D Game using Unity
- Student will learn level design for 3D Game using Unity

- Student will learn advance lighting in unity

3D Asset creation for Mobile Platforms (PR)

- Students will learn optimization techniques (Modelling and texturing) for Mobile platforms
- Student will learn to create different texture techniques used for mobile games
- Student will learn how to bake texture and light in 3D software

In design (TH)

- Student will introduce to Vector Art using InDesign
- Student will learn to create 2D Game Assets (Vector Art) Using InDesign
- Student will learn to create User Interface (UI) for Game

THIRD YEAR

Semester V

Scripting for Computer Game Design (PR)

- Students will learn Basic C# concepts using Unity Game engine
- Student will learn basic scripting in unity game Engine for 2D Game
- Student will build small 2D Games in Unity using C# Programming

Music and Sound for Computer Games (PR)

- Students will Introduce to sound editing software
- Student will be able to apply sound effects for a game

3D Rigging and Skinning for Game (PR)

- Student will introduced different rigging techniques used in industry
- Students will learn Different between Inverse Kinematics (IK)and Forward Kinematics (FK)
- Student will learn to create Character Controls required for Animation
- Student will learn Skinning techniques in Maya (Smooth, Rigid Bind)

Game Development I (PR)

- Student will Design 2D Game for PC or Mobile Platform
- Student will create 2D Assets for the design Game
- Student will Create 2D Character's required for the Design Game
- Student will create 2D Animation required for the Design Game

Game Engines Theory (TH)

- Student will learn basic concept of Unity
- Student will learn definition of Windows and shortcuts used in unity
- Student will learn definition physics system used in unity
- Student will learn definition of Game Object

Matte Painting (PR)

- Students will Introduction to drawing tablet techniques
- Students will understand Thumbnail sketching and ideation
- This subject will help student to create high colour details compositions & Environment.

Semester VI

Game Distribution and Marketing (PR)

- Student will introduced to Marketing strategies for Games
- Student will Introduce to Distribution Models for Games
- Student will prepare a Game marketing plan
- Student will prepare a Game distribution plan

3D Animation for Game (PR

- Student will Introduce to AnimationPrinciples
- Student will learn Basic Key frame Animation
- Student will learn Object Animation for Game
- Student will learn Character Animation f

Idea Generation for Final project (PR)

- *Student will Introduce to Idea Development Process*
- *Student will learn to Developing Ideas in the context of culture and ethics*
- *Student will learndifferent Medium of Presenting Ideas*

Game Development II (PR)

- Student will Design 3D Game for PC or Mobile Platform
- Student will create 3D Assets for the design Game
- Student will Create 3D Character's required for the Design Game
- Student will create 3D Animation required for the Design Game

SFX for PC Game (PR)

- Student will introduced to Dynamic System in Unity Game Engine
- Student will Introduced to Different Assets and Plug-in Available for Unity to Create Effects

Advance Photography (PR)

- Student will learn Retouching and image manipulation skills using Photoshop
- Student will learn different shooting modes to see how that effects your images
- Student will practice shooting portraits and try different lighting techniques
- Student will learn toexperiment with night photography and low light shooting