

# GAME DEVELOPMENT (GAME)

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**GAME-100 INTRODUCTION TO GAME DEVELOPMENT 3.00 Credits**

Course provides a hands-on comprehensive overview of roles within the video game development studio. Students will learn about the Scrum software development framework and how different roles interact with each other within an indie and AAA gaming studio. No prior programming experience is required.

**GAME-110 GAME HISTORY AND ANALYSIS 3.00 Credits**

This course explores the history of games and its effect on culture through a hands-on approach. Students will be exposed to a broad range of game styles played throughout history while creating their own version of a game from the same period.

**GAME-130 2D GAME DEVELOPMENT 3.00 Credits**

This course provides a primer for students to get started in creating 2D games. Topics include assets, coordinates, 2D Physics, prefabs, scripting, user interfaces, and simple AI. Prerequisites: CITPT-206.

**GAME-230 3D GAME DEVELOPMENT 3.00 Credits**

This course is for experienced programmers who wish to learn about 3D game development. Students will explore various advanced programming concepts through multiple projects. Topics will include prototyping, programming camera-relative movements, 3D physics, animator controllers, animation states, skyboxes, audio controllers, coroutines, and connecting your game to the internet. Prerequisites: GAME-130.

**GAME-250 INTRODUCTION TO GAME AI 3.00 Credits**

In this course students will explore strategies commonly used in the gaming industry to solve game AI problems. Topics will include state machines, behavior trees, sensory systems, pathfinding, trigger systems, rule-based systems, agent awareness, and adaptation. Prerequisites: GAME-130.

**GAME-280 GAME DEVELOPMENT PROJECT I 4.00 Credits**

This project is divided into two courses (GAME-280 and GAME-281) where students will work in groups to create a simple game or simulation. Topics will include iterative development techniques, source control, testing, debugging, team communication, and game documentation. Prerequisites: GAME-230.

**GAME-281 GAME DEVELOPMENT PROJECT II 4.00 Credits**

This project is divided into two courses (GAME-280 and GAME-281) where students will work in groups to create a simple game or simulation. Students will work towards completing their game by focusing on adding final elements to their game. Additional topics introduced may include team dynamics, task prioritization, and other development practices. Prerequisites: GAME-280.

**GAME-282 GAME DEVELOPMENT PROJECT III 4.00 Credits**

This project is dedicated to adding to a game previously worked on by the student or a team of students, for the purpose of improving current features and/or implementing new features to the game. Prerequisite: GAME-230.

**GAME-294 INTERNSHIP IN GAME DEVELOPMENT 12.00 Credits**

Internship in Game Development.