FCLC Introduction to Video Game Design Syllabus - Fall 2024

Course Code: CISC 2540 **Schedule:** Tuesdays and Fridays, 1:00 - 2:15 PM
Instructor: John Bezark **Office Hours:** Thursday 1-5pm. Book here

Course Description:

An introductory course exploring the fundamentals of digital game design and development. This course will use Godot 4 as the primary game creation tool, and it wil cover the basics of game development, coding fundamentals, and game design principles. Students will engage in hands-on projects to develop practical skills in both 2D and 3D game design. Students are not expected to have any prior programming or game design experience.

Course Objectives:

- Understand the principles of game design and development.
- Gain proficiency in Godot 4.
- Develop basic coding skills relevant to game design.
- Complete three major game design projects: a tabletop game, a 2D game, and a capstone game.
- Enhance writing and oral presentation skills through game-related assignments.
- Be able to better work in teams
- Respond to critical feedback constructively

Assessment

The work of the class consists of the following:

Assignment	Description	Due Date	Points
Attendance	3 unexcused absences. 0 points after that.		14
Class Participation	Actively participate in class discussions		14
Game Review	Play one of the suggested games and review it!	10/29	10
Tabletop Game	A playable prototype of a tabletop game	9/17	10
Tabletop Game Process Paper	Paper which documents process, execution and playtesting of tabletop game	9/24	8

Assignment	Description	Due Date	Points
Labs 1-4	4 short coding assignments designed to build proficiency. 6 points each.	9/27, 10/11, 10/15 and 11/15	24
2D Game Design Document	A brief paper describing your concept for the 2D Game	10/4	10
2D Game	A playable prototype of a 2D game	10/29	20
Capstone Concept Presentation	A brief Presentation describing your concept for the 2D Game	11/22 & 11/26	10
Capstone Game	A polished game. Can be an evolution of the 2D game or something new.	Final	30
Total Points Possible			**150**

All assignments will be graded on the due date. Students are always allowed to revise and resubmit work **up until 12/3.**

Course Outline

The course is split into 3 distinct modules each with a unique project: - Week 1-3: Game Design Fundamentals and tabletop design - Week 4-10: 2D Game Design - Week 10-14: 3D Game Design/Final Project Development

Week 1 - What is a Game?

Friday 8/30

- CLASS NOTES
- Syllabus Reviews
- Professor John
- Game Design Fundamentals
- ASSIGN: Game Review
- ASSIGN: Tabletop Game

Tuesday 9/3

- Game Design Fundamentals
- Prototyping
- Group Work

Friday 9/6

- Playtesting
- Group Work

Week 2 - Prototyping and Iteration

Tuesday 9/10

- Prototyping Tabletop Games: Balancing and Mechanics
- Reading: MDA and Magic Circle
- MDA Framework
- Systems, Loops and Balance

Friday 9/13

- NO IN PERSON CLASS
- Group work

Week 3 Playtesting/Hello Godot

Tuesday 9/17

- Playtesting
- DUE: Tabletop Game

Friday 9/20

- Git Init
- Getting started with Godot
- **Homework: Lab 1**

Week 4 - Getting Started in 2D

Tuesday 9/24

- Hello Godot
- Nodes and Scenes
- DUE: Process Paper

Friday 9/27

- Genres in 2D
- Project Brainstorming
- 2D Game Brainstorming

Week 5 - Coding Fundamentals

Tuesday 10/1

- Coding Fundamentals
- Scripts and properties
- DUE: Lab 1
- **Homework: Lab 2**
- **Homework: 2D Game**

Friday 10/4

- Variables
- Conditionals, Input

Week 6 – Input and Interactions

Tuesday 10/8

- Git Branches
- Area2D, Characterbody, Collisions ### Friday 10/11
- Lab Review
- Signals
- Functions/Arrays
- Demo Projects
- DUE: Lab 2

Week 7 - Level and Environment Design

Tuesday 10/15

- Assets
- Tilemaps

Friday 10/18

- Sound
- Common Patterns: Levels, Checkpoints and Respawns
- DUE: 2D Game Concept
- Git Collaboration
- **Homework: Lab 3**

Week 8 - UI

Tuesday 10/22

- Control Nodes
- Common Patterns – Items and Enemies
- Characters, Levels and Items

Friday 10/25

- Project Development

Week 9

Tuesday 10/29

- Playtesting
- DUE: 2D Game

Friday 11/1

- Hello 3D

Week 10 - Environments

Tuesday 11/5

NO CLASS: GO VOTE!

Friday 11/8

- Introduction to 3D in Godot
- Lighting and Camera Techniques in 3D Games

Week 11

There will be no in person class this week, instead there will be a video recording.
Tuesday 11/12 - Materials, Models NO IN PERSON

Friday 11/15

NO IN PERSON - Light, Sound - DUE: Lab 4

Week 12 Review and Capstone Presentations

Tuesday 11/18

- Review
- Advanced Topics
  - Exporting
  - NPCs, Classes and Inheritance...

Friday 11/22

- Capstone presentations

Week 13 - Capstone Presentations

Tuesday 11/26

- Capstone presentations

Friday 11/29

- NO CLASS: BUY A NEW TV?

Week 14 - Review

Tuesday 12/3

- DUE: Final project playtest

Friday 12/6

- Review

Week 15

Tuesday 12/10

- Preparing for the Game Industry: Portfolio and Career Paths

Final

- DUE: Capstone Project

Necessary Materials:

- Godot 4.3 : An open source 2D, 3D and XR game engine.
- Github Desktop: an industry standard version control system

Tools Used

- Godot 4.3 : An open source 2D, 3D and XR game engine.
- Blender : an open source 3D modeling and animation program.
- Github Desktop: an industry standard version control system

Godot

- Source Code
- Docs
- Demo Projects
- Forums

- Godot Discord
- **TUTORIALS**

Git & Github

- Dan Shiffman's Github for Poets

Instructor Details

John Bezark (he/they) is a Brooklyn based Game Designer, Creative Technologist, Immersive Experience Designer and Video Artist. They graduated from NYU's ITP with an MPS in Interactive Telecommunications and from Fordham University with a BA in Theatrical Directing. John has made everything from Solar Powered Websites to Immersive Game-shows about Systems Thinking.

Nowadays they like to use the Godot Game Engine to create one of a kind immersive and interactive experiences, games and performance art.

When not creating weird things, John also really likes to work in education and he's passionate about teaching others how to design immersive spaces, how to make games and how to see the world through the lens of Systems Thinking.
Email: jbezark@fordham.edu Portfolio

Office Hours by appointment.