CSC404: Video Game Design

Course topics include: game history & genres, "ludology" (theory of fun, story creation, optimal experience), character & level design, industry tools & processes, graphics & animation, modelling techniques, collision detection, visual effects, scripting (passive & active), HCI & interface design, verification & playtesting, business of gaming. Material & projects based on real-world processes.

Instructor Information

Name	Email
Elias Adum	elias@cs.toronto.edu (put "CSC404" in the subject)

Class Information

- **Lecture:**   Wednesday 6:00 PM – 8:00 PM   (SF3201)
- **Tutorial:**   Wednesday 8:00 PM – 9:00 PM   (SF3201)
- **Office hours:**   Wednesday 5:00 PM – 6:00 PM or by appointment   (BA2283 / Discord)

Course Materials

- **Web Page:**   Quercus (Discord for presentations, itch.io for submissions)
- **TA Contact:**   csc404ta@cs.toronto.edu
- **Engine:**   Recommended engines are: Unity and Unreal.
- **Discord:**   https://discord.gg/WEsdsZWnjD

Course Schedule

Week of	Topics	Milestone(s)
Sep 14	Course Intro, Ludology Part 1, Game Mechanics	**Game Jam Assignment 1**
Sep 21	Ludology Part 2, Pitching, Unity Tutorial	**Game Jam Assignment 2 & Game Ideas**
Sep 28	**In Class (Online) Pitch Presentation**	Milestone 1: **Pitch & Creative Brief**
Oct 05	Design Docs, Character & Level Design	**Tech Demo**
Oct 12	**In Class (Online) Design Document Presentation**	Milestone 2: **Design Document**
Oct 19	Prototyping, Playtesting & Project Management	**Tutorial Level**
Oct 26	UI/UX for Games	
Nov 02	**In Class (Online) Alpha Presentation**	Milestone 3: **Alpha**
Nov 09	Reading Week	
Nov 16	AI for Games, Business of Games	**Updated Game Demo**
Nov 23	**In Class (Online) Beta Presentation**	Milestone 4: **Beta & Playtesting Report**
Nov 30	Mobile Game Design, Production & Publishing	
Dec 07	**In Class (Online) Final Presentation**	Milestone 5: **Final Builds, Itch.io page, Dev Logs, Trailer, Peer Evaluations**

Course Deliverables

Note: *For all presentation milestones, groups must provide feedback when not presenting.*

Game Jam Assignments	**10% (5% each)**

- One-day online hackathon events held at UofT.

Game Brainstorming	**3%**

- Submitting ideas for potential games for the project.

Milestone #1: Game Pitch & Creative Brief	**5% & 2%**

- Present main game idea and how it targets the theme and the audience.
- Describe game mechanics, secret ingredients, and what a completed final product will look like.
- Include: mock-ups, mood boards, sketches, game inspirations, etc.
- **Submit:** Creative brief document.

Milestone #2: Design Document & Prototype	**5% & 5%**

- Present all pre-coding design details of the final game.
- Include: mock-ups, storyboards, mood boards, sketches, data models, etc.
- Also include technology proof-of-concept (presentation), and task breakdown (document)
- **Submit:** Design document

Milestone #3: Game Alpha	**5%**

- In-class demo of playable prototype.
- Describe plans for upcoming sprints, and goals for final product.
- Include: Assets and animations for the main characters, at least one fully playable level, music & SFX.
- **Submit:** Link to development repository, Alpha builds on the itch.io page.

Milestone #4: Beta Release & Playtesting Report	**5% & 5%**

- In-class demo of completed product, and playtesting results.
- Produce tutorial, with descriptions of gameplay and controls.
- **Submit:** Playtesting Report, Beta builds on the itch.io page.

Milestone #5: Playtesting Demo & Final Items	**15% & 5%**

- Testing & evaluation by industry professionals
- Final reflections on development process and final product.
- Include: Finalized tutorial, finalized game assets, finalized gameplay features, and all levels.
- **Submit:** Finalized Itch.io page, Final Game Builds, Video Trailer, Peer Evaluations.

Tech Demo, Tutorial Level, Updated Game Demo	**15% (5% each)**

- Progress checks to demonstrate current state of the game.

Itch.io Page	**10%**

- A development journal, outlining your group's weekly progress, challenges, and setbacks.

Participation	**10%**

- Participating in online classes, online presentations, online discussions, providing feedback to other groups, etc.

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