

# 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 subject)

## Class Information

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

## Course Materials

- **Web Page:** <http://www.cs.toronto.edu/~csc404h>
- **TA Contact:** [csc404ta@cs.toronto.edu](mailto:csc404ta@cs.toronto.edu)
- **Engine:** Recommended engines are: Unity and Unreal.

## Course Schedule

Week of	Topics	Milestone(s)
Sep 16	Course Intro & Level Up	<b>Game Jam Assignment 1</b>
Sep 23	Ludology & Pitching	<b>Game Ideas &amp; Game Jam Assignment 2</b>
Sep 30	<b>In Class (Online) Pitch Presentation</b>	Milestone 1: <b>Pitch &amp; Creative Brief</b>
Oct 07	Design Docs, Character & Level Design, Mechanics	
Oct 14	<b>In Class (Online) Design Doc &amp; Prototype Presentation</b>	Milestone 2: <b>Design Doc &amp; Prototype</b>
Oct 21	Prototyping, Playtesting & Scrum Development	
Oct 28	AI for Games, UI/UX for Games	
Nov 04	<b>In Class (Online) Alpha Presentation</b>	Milestone 3: <b>Alpha</b>
Nov 11	<b>Reading Week</b>	
Nov 18	Business of Games	
Nov 25	<b>In Class (Online) Beta Presentation</b>	Milestone 4: <b>Beta &amp; Playtesting Report</b>
Dec 02	Mobile Game Design, Production & Publishing	
Dec 09	<b>In Class (Online) Final Presentation</b>	Milestone 5: <b>Final Builds, Itch.io page, Trailer, Peer Evaluations</b>

## Course Deliverables

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

### Game Jam Assignments 5% each

- One-day online hackathon events held online via Discord.

### 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.
- Short presentation that demonstrates thorough understanding of the gameplay.
- Include: mock-ups, mood boards, sketches, game inspirations, etc.
- **Submit:** Creative brief document.

### Milestone #2: Design Document & Prototype 10% & 5%

- Present all pre-coding design details of the final game.
- Include: mock-ups, storyboards, mood boards, sketches, data models, etc.
- Presentation highlight game mechanics, concept art, and a technology proof-of-concept.
- **Submit:** Design document, itch.io page.

### Milestone #3: Game Alpha 15%

- In-class demo of playable prototype.
- Describe plan for final sprints, and target 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 15% & 5%

- In-class demo of completed product, and playtesting results.
- Outline challenges and features of final design describe finishing touches.
- 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.

### Participation 10%

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