

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 (BA 2135)
- **Tutorial:** Wednesday 8:00 PM – 9:00 PM (BA 2135)
- **Office hours:** Wednesday 5:00 PM – 6:00 PM or by appointment (BA 2283)

Course Materials

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

Course Schedule

Week of	Topics	Milestone(s)
Sep 11	Course Intro & Level Up	Game Jam Assignment 1
Sep 18	Ludology & Pitching	Game Ideas & Game Jam Assignment 2
Sep 25	In Class Pitch Presentation	Milestone 1: Pitch & Creative Brief
Oct 02	Design Docs, Character & Level Design, Mechanics	
Oct 09	In Class Design Doc & Prototype Presentation	Milestone 2: Design Doc & Prototype
Oct 16	Graphics for Games	
Oct 23	AI for Games, Prototyping, Playtesting	
Oct 30	In Class Alpha Presentation	Milestone 3: Alpha
Nov 06	Study Break	
Nov 13	In Class Beta Presentation	Milestone 4: Beta & Playtesting Report
Nov 20	Business of Games	
Nov 27	In Class Final Presentation	Milestone 5: Final Presentation, Trailer, Final Game & Peer Evaluations
Dec 04	Mobile Game Design, Production & Publishing	

Course Deliverables

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

Game Jam Assignments	5% each
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- One-day hackathon events at UofT.

Game Brainstorming	3%
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- Submitting ideas for potential games for the project.

Milestone #1: Game Pitch & Creative Brief	5% & 2%
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- 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.
- **Submit:** Creative brief document

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

Milestone #3: Game Alpha	15%
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- In-class demo of playable prototype.
- Describe plan for final sprints, and target for final product.
- **Submit:** Link to development repo

Milestone #4: Beta Release & Playtesting Report	15% & 5%
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- 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

Milestone #5: Playtesting Demo & Final Items	15% & 5%
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- Testing & evaluation by industry professionals
- Final reflections on development process and final product.
- **Submit:** Final game, Video Trailer, Peer Evaluations

Participation	10%
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- Participating in class, presentations, etc.