CSC404: Video Game Design

Course topics include: game history & genres, "ludology" (theory of fun, story creation, optimal experience), character and level design, industry tools & processes, graphics & animation, modeling 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	Video	Email
Steve Engels	https://utoronto.zoom.us/j/5546086241 Passcode: 112358	sengels@cs.toronto.edu (please put "404" in subject heading)
Emma Westecott	https://ocadu.zoom.us/j/89388655668 Passcode: 4?d+CVG0	ewestecott@faculty.ocadu.ca
Mason Victoria	Course Discord channel	mason.victoria@utoronto.ca

Course Schedule

Lecture (Tu 1pm-3pm)	Tutorial (Th 1pm-2pm)	Deliverables
Jan 9 @ 1pm ⇨ Course Intro, Ludology	**Jan 11 @ 2pm** ⇨ Idea Creation	**Game Jam Assignment 1** – Jan 13
Jan 16 @ 1pm ⇨ Ludology, part 2	**Jan 18 @ 2pm** ⇨ Game Pitch Prep	**Game Idea Submissions** – Jan 15 **Game Jam Assignment 2** – Jan 20
Jan 23 @ 1pm ⇨ Game Pitch Presentations	**Jan 25 @ 2pm** ⇨ Character Design	**Creative Brief** – Jan 26
Jan 30 @ 1pm ⇨ Level Design	**Feb 1 @ 2pm** ⇨ Design Doc Prep	**Tech Proof-of-Concept** – Jan 30
Feb 6 @ 1pm ⇨ Design Presentation	**Feb 8 @ 2pm** ⇨ Game Design Research 1	**Design Document** – Feb 9
Feb 13 @ 1pm ⇨ UI/UX Design	**Feb 15 @ 2pm** ⇨ Project Management	**Level Prototype** – Feb 13
Reading Week		
Feb 27 @ 1pm ⇨ Alpha Demo Presentation	**Feb 29 @ 2pm** ⇨ Prototyping & Playtesting	**Playable Prototype** – Mar 1
Mar 5 @ 1pm ⇨ Ludology, part 3	**Mar 7 @ 2pm** ⇨ Playtesting Report	
Mar 12 @ 1pm ⇨ Post-Playtest Demo	**Mar 14 @ 2pm** ⇨ Beta Presentation Prep	**Post-Playtesting Demo** **Ubisoft Playtest Session** – Mar 12
Mar 19 @ 1pm ⇨ Beta Presentation	**Mar 21 @ 2pm** ⇨ Game Design Research 2	**Beta Release &** **Playtest Report** – Mar 22
Mar 26 @ 1pm ⇨ AI for Games	**Mar 28 @ 2pm** ⇨ Monetization & Metrics	
Apr 2 @ 1pm ⇨ TBD	**Apr 4 @ 2pm** ⇨ TBD	**Final Build & Deliverables**– Apr 5 **Gameloft/Zynga Demo** – Apr 5?
		Level Up Showcase – Apr 19

Course Materials

- **Web Page:** Quercus (itch.io for milestone submissions)
- **Discord:** https://discord.gg/vHeghQrTaY
- **TA Contact:** 404ta@cs.utoronto.ca
- **Suggested Text:** Rabin, Steve. *Introduction to Game Development*, Charles River Media.

Course Deliverables

Note: *For milestone presentations, half of the groups present in the OCADU lecture (Tue 8:30-11:30).*

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

- One-day hackathon events (one at UofT, one at OCADU).

Game Ideas — **3%**

- Submitting ideas for potential games for the project.

Milestone #1: Game Pitch & Creative Brief — **5% & 3%**

- 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.
- **Submit:** Creative brief document

Milestone #2: Design Presentation & Design Document — **5% & 10%**

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

Milestone #3: Game Alpha — **10%**

- In-class demo of playable prototype.
- Describe plans for upcoming sprints and goals for final product.
- **Submit:** Game demo on itch page

Milestone #4: Beta Release & Playtesting Report — **10% & 5%**

- In-class demo of completed product, and playtesting results.
- **Submit:** Playtesting report

Milestone #5: Playtesting Demo & Final Items — **10% & 5%**

- Testing & evaluation at Uken/Gameloft/Zynga playtest event
- **Submit:** Final game, video trailer, peer evaluation

Tech Demo, Tutorial Level, Updated Game Demos — **3% each (9% total)**

- Progress checks to demonstrate current state of game.

Itch.io page — **5%**

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

Participation — **10%**

- Participating in class, presentation feedback, playtesting sessions, Ludology seminar, etc.

Peer Evaluations

This course uses peer evaluations to inform adjustments to your final project mark. As a result, the mark that you receive for your project is contingent on your active and equal contribution to the milestones and your group. The peer evaluations are a measure of the quantity and quality of your contributions, and inform us to potential adjustments that might be necessary.

At the end of the course, we ask everyone in the class to provide peer evaluations of their group members (including themselves). If a group member performs above expectations, a multiplier is applied that can increase their project mark by up to 15%. If a group member's contribution is negative or absent, the multiplier will reduce their project mark (by no more than 15%, except in extreme cases).

Serious negative evaluations will involve a follow-up discussion with the course instructor.

Lecture Recordings Policy

Recorded lectures for this course are hosted on the course YouTube channel:

- https://www.youtube.com/playlist?list=PLNb2ynmgQVX2FEqdI4i9m3ExC0F4o9bxL

Online lectures & tutorials for this course (including your participation) may be recorded on video and be available to students in the course for viewing remotely and after each session. Course videos and materials from this semester and previous semesters belong to your instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright.

In this course, you are permitted to download session videos and materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

Generative AI Policy

This course permits the use of external code, art or sounds in the development of the final project (including generative AI). However, students must indicate which portions of their project were completed with external assets (including generative AI), and must cite their sources in these cases. Representing external work as one's own will be considered as an academic offense.