CSC404H1 S Introduction to Video Game Design Winter 2025 Syllabus

Course Meetings

CSC404H1 S

| Section | Day & Time | Delivery Mode & Location |
|---------|-----------------------------|--------------------------|
| LEC0101 | Tuesday, 1:00 PM - 3:00 PM | In Person: MY 330 |
| | Thursday, 2:00 PM - 3:00 PM | In Person: MY 330 |

Refer to ACORN for the most up-to-date information about the location of the course meetings.

This is a hybrid course, meaning that some of the lectures or tutorials will involve online presentations or guest speaker talks. These will be communicated through announcements on Discord and the course Quercus page.

Course Contacts

Course Website: https://q.utoronto.ca/courses/380221

Instructor: Dr. Steve Engels Email: <u>sengels@cs.toronto.edu</u> Phone: 416-946-5454 Office Hours and Location: Thursdays, 1pm-2pm (in-person), BA4266 Additional Notes: Please write "CSC404" in the subject header of course-related emails. Email your instructor if appointments outside this time are required.

Course Overview

Concepts and techniques for the design and development of electronic games. History, social issues, and story elements. The business of game development and game promotion. Software engineering, artificial intelligence, and graphics elements. Level and model design. Audio elements. Practical assignments leading to team implementation of a complete game.

Students must submit an application to the course describing relevant interests, experience, and skills and general academic history. Application questions are set and assessed by the instructor. Applications from St. George students enroled in a Computer Science program or the Data Science Specialist program will be considered first. Applications by students from other programs with appropriate prerequisites will be considered as space permits.

Please visit <u>https://q.utoronto.ca/courses/221753/pages/400-level-course-balloting-and-applications</u> for application deadlines and details. A decision on your application will be

confirmed approximately 2-3 weeks after the application deadline, so students should enrol in an alternate course until the results of their application are confirmed.

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Course Learning Outcomes

By the end of this course, students will have completed the development milestones of a playable video game, and demonstrated this playable prototype to a panel of industry experts.

Prerequisites: CSC301H1/ CSC317H1/ CSC318H1/ CSC384H1/ CSC417H1/ CSC418H1/ CSC419H1 Corequisites: None Exclusions: CSC404H5. NOTE: Students not enrolled in the Computer Science Major or Specialist program at A&S, UTM, or UTSC, or the Data Science Specialist at A&S, are limited to a maximum of 1.5 credits in 300-/400-level CSC/ECE courses. Recommended Preparation: None Credit Value: 0.5

| Assessment | Percent | Details | Due Date |
|-------------------------|---------|--|---------------------------|
| Game Jam 1 | 5% | Produce a game in a small team within the 6-hour development period. | 2025-01-11 |
| Game Jam 2 | 5% | Produce a game in a small team within the 6-hour development period. | 2025-01-18 |
| Game Idea Submission | 3% | 2-3 game ideas for term project | 2025-01-13 |
| Game Pitch | 5% | Present pitch for proposed game design. | 2025-01-21,2025-01- 22 |

Marking Scheme

| Assessment | Percent | Details | Due Date |
|------------------------------------|---------|---|---------------------------|
| Creative Brief | 3% | Creative brief that outlines pitch presentation elements. | 2025-01-24 |
| Tech Demo | 3% | Proof-of-concept demonstration of core technology component | 2025-01-31 |
| Game Design Presentation | 5% | Present design for proposed game. | 2025-02-04,2025-02- 05 |
| Design Document | 10% | Design document that outlines overall game blueprint (character design, level design, aesthetics, sound design, level progression, etc) | 2025-02-07 |
| Level Implementation | 3% | Implementation of example level from design document. | 2025-02-14 |
| Playable Prototype Presentation | 10% | Present playable game prototype. | 2025-02-25,2025-02- 26 |
| Updated Playtest Level | 3% | Demonstration of game, updated with playtesting results. | 2025-03-11 |
| Beta Release Presentation | 10% | Present final release version of game project. | 2025-03-18,2025-03- 19 |
| Playtesting Report | 5% | Summary of playtest results, analysis and impact on updated game. | 2025-03-21 |
| Final Demo | 10% | Final demo of completed product. | 2025-04-03 |
| Final project items | 5% | Submission of final build, trailers & peer evaluations | 2025-04-04 |
| itch.io page | 5% | Continuously updated itch.io page, complete with deliverables and progress updates from project milestones. | 2025-04-04 |
| Participation | 10% | Participation in class-related activities (class participation, presentation feedback, playtesting sessions, Ludology seminar, etc) | No Specific Date |

Late Assessment Submissions Policy

All assessments must be completed by the specified deadlines.

Course Schedule

| Lecture (Tu 1pm-3pm) | Tutorial (Th 1pm-2pm) | Deliverables | |
|-----------------------------|---------------------------|---|-------|
| Jan 7 @ 1pm | Jan 9 @ 2pm | Game Jam Assignment 1 – Jan 11 | |
| Course Intro, Idea Creation | Ludology, part 1 | | |
| Jan 14 @ 1pm | Jan 16 @ 2pm | Game Idea Submissions | – Jan |
| Ludology, part 2 | Game Pitch Prep | Game Jam Assignment 2 18 | – Jan |
| Jan 21 @ 1pm | Jan 23 @ 2pm | Creative Brief – Ja 24 | |
| Game Pitch Presentations | Character Design | | |
| Jan 28 @ 1pm | Jan 30 @ 2pm | Tech Proof-of-Concept – Ja 31 | |
| Level Design | Design Doc Prep | | |
| Feb 4 @ 1pm | Feb 6 @ 2pm | Design Document | – Feb |
| Design Presentation | Game Design Research 1 | 7 | |
| Feb 11 @ 1pm Feb 13 @ 2pm | | Level Prototype | – Feb |
| UI/UX Design | Project Management | 14 | - |
| Reading Week | | | |
| eb 25 @ 1pm Feb 27 @ 2pm | | Playable Prototype | – Feb |
| Alpha Demo Presentation | Prototyping & Playtesting | 28 | |
| Mar 4 @ 1pm | Mar 6 @ 2pm | | |
| Ludology, part 3 | Playtesting Report | | |
| Mar 11 @ 1nm | Mar 13 @ 2nm | Playtesting Demo | |
| Playtest Demo | Beta Presentation Prep | Ubisoft Playtest Session | – Mar |
| | | 12 | |
| Mar 18 @ 1pm | far 18 @ 1pm Mar 20 @ 2pm | | – Mar |
| Beta Presentation | Game Design Research 2 | Playtest Report | |
| Mar 25 @ 1pm | Mar 27 @ 2pm | | |
| AI for Games | Monetization & Metrics | | |

Apr 1 @ 1pm TBD Apr 3 @ 2pm TBD Final Build & Deliverables – Apr 4Final Demo @ Zynga– Apr3– AprLevel Up Showcase– Apr12

Policies & Statements

Quercus Info (if using)

This Course uses the University's learning management system, Quercus, to post information about the course. This includes posting readings and other materials required to complete class activities and course assignments, as well as sharing important announcements and updates. New information and resources will be posted regularly as we move through the term. To access the course website, go to the U of T Quercus log-in page at https://q.utoronto.ca. SPECIAL NOTE ABOUT GRADES POSTED ONLINE: Please also note that any grades posted are for your information only, so you can view and track your progress through the course. No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved and posted on ACORN at the end of the course. Please contact me as soon as possible if you think there is an error in any grade posted on Quercus.

Course Materials, including lecture notes

Course materials are provided for the exclusive use of enrolled students. These materials should not be reposted, shared, put in the public domain, or otherwise distributed without the explicit permission of the instructor. These materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. Students violating these policies will be subject to disciplinary actions under the Code of Student Conduct.