COMP 4900D/5900L (Winter, 2025) – Games for Social Good
School of Computer Science, Carleton University
Course Outline

Instructor: Edward Melcer

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Office Location: Room 5356, Herzberg Building

Best Ways to be in Touch: In class, via email, via class discord, or during student hours.

Teaching Assistant: A list of teaching assistants and their contact/office hours information will be posted once the course starts.

Class Location: Please check Carleton Central for the room location.

Lecture Times: T/TR, 1:05 pm - 2:25 pm

Course Website:
https://brightspace.carleton.ca/d2l/home/308147

Important dates and deadlines can be found here: https://carleton.ca/registrar/registration/dates/academic-dates/, including class suspension for fall, winter breaks, and statutory holidays.

Welcome

I am thrilled to welcome you to COMP 4900D/5900L: Games for Social Good. In this class, we will explore the foundations of games for social good from concept generation to design and development. In this overview, you will find 1) how this class will be run, and 2) important links to lead you to more information throughout the course. You will learn a variety of exciting topics that will empower you to create games that can enact meaningful change for individuals and communities, as well as create powerful samples for your portfolios. By taking this course, you will also develop the skills and knowledge to communicate effectively within game development teams, as well as research effectively and rapidly prototype game ideas to address issues within the domains of education, health, and social good.

I also welcome you to contact me outside of class and office hours. You may send me a message on slack/discord, email me, or chat directly in the hallways or at my office between classes. My door is always open, and I encourage you to reach out with your questions, enthusiasm, or whatever needs I can address!

Course Calendar Description
Selected Topics in CS: Games for Social Good.

This course provides an overview of games and their applications in health, education, and training. Through relevant readings and the creation of prototypes, the course will focus on giving students a practical guide to the process of conceptualizing, designing, and developing games for addressing social good. Topics include an introduction to serious games, history of games for social good, rapid prototyping and playtesting, design analysis frameworks, design thinking, root cause analysis, theory of change, gamification techniques, and game evaluation techniques.

Prerequisite(s):

Undergraduate level COMP 1501 Minimum Grade of D- and Undergraduate level COMP 2501 Minimum Grade of D-

Learning Material(s) and Other Course-Related Resources
Students are not required to purchase textbooks or other learning materials for this course.

Learning Outcomes
The objective of this class is to give students a practical understanding of the scope of games for social good, their designs, and techniques to create them effectively. Students will apply these techniques through the creation of three serious game prototypes. Students will also practice the process of design and evaluation as discussed in class.

Specifically, if successful, students will be able to demonstrate:
- Understanding of the various forms of games for social good
- Utilizing the game creation process to address a goal beyond entertainment
- Ability to rapidly prototyping and work against deadlines
- Ability to assess the efficacy of games for social good

Topics Covered

Week	Class	Topic	Assignment	Due
1	1/7	Introduction to Serious Games		
	1/9	History and Business of Serious Games	***Assignment 1*** Serious Game Analysis #1	1/20
2	1/14	Game Design Recap		
	1/16	Serious Game Analysis Techniques		
3	1/21	Root Cause Analysis	***Assignment 2*** Randomized Serious Game Brainstorm	1/28
	1/23	Design Thinking and Brainstorming Techniques		
4	1/28	Introduction to Games with an Agenda	***Project 1*** Agenda Game Analog Prototype	2/11
	1/30	Procedural Rhetoric		
5	2/4	Analog Prototype Playtest		
	2/6	Theory of Change		
6	2/11	Final Analog Prototype Playtest		
	2/13	Introduction to Educational and Training Games	***Project 2*** Educational Game Digital Prototype	3/13
7	2/18	Spring Break		
	2/20			
8	2/25	Design Patterns and Learning Mechanics		
	2/27	Evaluation of Serious Games		
9	3/4	Educational Game Playtest		
	3/6	Gamification		
10	3/11	Final Educational Game Playtest	***Assignment 3*** Game for Social Good Pitch	3/18
	3/13	Introduction to Games for Health		
11	3/18	Game for Social Good Pitches	***Final Project*** Game for Social Good Prototype	4/8
	3/20	Accessibility in Game Design		
12	3/25	AR, VR, MR, and XR for Serious Games		
	3/27	Final Project Playtest		
13	4/1	Showcasing Your Games for Social Good		
	4/3	Class Requested Topic OR Final Project Work Session		
14	4/8	Final Project Presentations		

Assessment Scheme

Grade Breakdown

Component	Grade Value	Due Date
Attendance and In-Class Activities	15%	N/A
Assignment 1	5%	1/20
Assignment 2	5%	1/28
Assignment 3	5%	2/25
Midterm Project 1	20%	2/11
Midterm Project 2	20%	3/13
Final Project	30%	4/8

Assessments

- **In-Class Activities** – Each in-class activity is designed to build upon what was taught earlier in that class by providing a more concrete/creative context to apply new knowledge.
- **Homework Assignments** – Each of the three homework assignments is designed to provide additional practice outside of class that reinforces knowledge, skills, and design thinking learned from previous weeks. Homework will focus more heavily on the development of design skills through practice. Individual homework assignments and objectives will be posted once the course starts.
- **Projects** – Each project focuses on allowing students to think more broadly about how the various design skills and other techniques they learned throughout the course can be utilized to create games for social good that address a specific characterizing goal. Students will apply this knowledge in the creation of a functional game prototype. There will be 2 smaller midterm projects followed by a larger final project during the course.

Grading

In accordance with Carleton University Calendar Regulations, the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	A = 85-89	A- = 80-84
B+ = 77-79	B = 73-76	B- = 70-72
C+ = 67-69	C = 63-66	C- = 60-62
D+ = 57-59	D = 53-56	D- = 50-52
F = <50		

WDN = Withdrawn from the course; DEF = Deferred; FND = (Failed, no Deferred)

Late and Missed Work Policies

Late Work

Assignments should be submitted by the given due date. You are allowed to submit one late

assignment during the semester, as long as it is within one week of the given deadline. There is no need to contact anyone and you will not lose any points. Any subsequent late assignment will lose 10% from the total grade for each day that it is late.

Missed Work

If you would like to request a deferral for an assignment/project deadline (apart from the one-time assignment extension available to everyone), please contact your TA and instructor on a single email and fill in the academic considerations form no later than three working days after the work was due. You will then be informed about the next steps. Note that this should only be used for short-term concerns; if you are experiencing chronic, ongoing challenges, please follow the above steps but fill out the longer-term considerations form instead. Please also consider reaching out to the Paul Menton Centre and/or the Care Support team.

Communication
- Please ask all questions related to lecture material, course policies, assignments, and projects using the appropriate discussion forums on Brightspace or Discord
- You are also encouraged to attend office hours to ask questions or discuss further
- Email your TA if there is a matter related to an assignment or project grade; please do not post these to a forum. Any deferral requests (see Deferral section below) should also be communicated by email
- Email your instructor in the case of confidential information or personal matters

Respect and Inclusion
The course instructor and TA in this course are committed to fostering an environment for learning that is inclusive for everyone. All students in the class, the instructor, and any guests should be treated with respect during all interactions—including any communications in class, through email, during office hours, or on any forum. It is my hope that our class will support diversity of experience, thought, and perspective.

School of Computer Science Laptop Requirement
Every student that has been enrolled in a 1000-level (i.e., first year) course offered by the School of Computer Science after the 2020/2021 school year is required to have a laptop. This includes COMP1001, COMP1005, and COMP1006. For more information, please visit https://carleton.ca/scs/scs-laptop-requirement/ and then review the requirements at https://carleton.ca/scs/scs-laptop-requirement/laptop-specs/.

Undergraduate Academic Advisors

The Undergraduate Advisors for the School of Computer Science are available in Room 5302HP; or by email at scs.ug.advisor@cunet.carleton.ca. The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

SCS Computer Laboratory

Students taking a COMP course can access the SCS computer labs. The lab schedule and location can be found at: https://carleton.ca/scs/tech-support/computer-laboratories/. All SCS computer lab and technical support information can be found at: https://carleton.ca/scs/tech-support/. Technical support staff may be contacted in-person or virtually, see this page for details: https://carleton.ca/scs/tech-support/contact-it-support/.

Assistance for Students and Resources

Carleton Wellness: https://wellness.carleton.ca/

Career Services: https://carleton.ca/career/

Writing Services: https://carleton.ca/csas/support/

Peer Assisted Study Sessions (PASS): https://carleton.ca/csas/group-support/pass/

Math Tutorial Centre: https://carleton.ca/math/math-tutorial-centre/

Science Student Success Centre: https://sssc.carleton.ca/

Academic Accommodations and Regulations

Academic Accommodation

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes are outlined on the Academic Accommodations website (https://students.carleton.ca/course-outline/).

Chat GPT/Generative AI Usage

As our understanding of the uses of AI and its relationship to student work and academic Integrity continue to evolve, students are required to discuss their use of AI with the course instructor to ensure it supports the learning goals for the course.

Academic Integrity

Students are expected to uphold the values of academic Integrity, which include fairness, honesty, trust, and responsibility. Examples of actions that compromise these values include but are not limited to plagiarism, accessing unauthorized sites for assignments or tests, unauthorized collaboration on assignments or exams, and using artificial intelligence tools such as ChatGPT when your assessment instructions say it is not permitted.

If you are unsure of the expectations regarding academic Integrity (how to use and cite references, if unauthorized collaboration with lab- or classmates is permitted (and, if so, to what degree), then you must ASK your instructor. Sharing assignments or quiz specifications as well as posting them online to sites like Chegg, CourseHero, OneClass, and so forth is ALWAYS considered academic misconduct.

Misconduct in scholarly activity will not be tolerated and will result in consequences as outlined in Carleton University's Academic Integrity Policy. A list of standard sanctions in the Faculty of Science can be found here.

Additional details about this process can be found on the Faculty of Science Academic Integrity website.

Students are expected to familiarize themselves with and abide by Carleton University's Academic Integrity Policy.

Student Rights & Responsibilities

Students are expected to act responsibly and engage respectfully with other students and members of the Carleton and the broader community. See the 7 Rights and Responsibilities Policy for details regarding the expectations of non-academic behaviour of students. Those who participate with another student in the commission of an infraction of this Policy will also be held liable for their actions.

Student Concerns

If you have any concerns regarding this course, your first point of contact is me. Please email me or visit during my student hours, and I will do my best to address your concerns. If I cannot resolve the issue, the next point of contact is the School of Computer Science at studentconcerns@scs.carleton.ca. If the concern remains unresolved, the final point of contact is the Office of the Dean of Science at ODScience@carleton.ca. Please follow this order of contact. **Note:** You can also bring your concerns to Ombuds services.

Land acknowledgement

Here at Carleton University, it is important that we acknowledge that the land on which we gather is the traditional and unceded territory of the Algonquin nation.

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