New to University? Teaching Assistants (TAs) support the course by grading assessments, supervising tutorials, and providing assistance with course content during office hours. You are encouraged to attend office hours (schedule is on Brightspace) with specific questions to get course and assignment support.

Carleton University acknowledges the location of its campus on the traditional, unceded territories of the Algonquin nation.

1. About the Course

Calendar Description: Introduction to game design and prototyping. Topics include: formal theories of fun; the mechanics-dynamics-aesthetics framework; game economies; game balance; statistical tools for analyzing game mechanics; game settings; and storytelling. Special attention is given to the attributes of games and what makes a game fun.

Prerequisite(s): One of COMP 1405, COMP 1005

Textbooks and Other Resources: The following textbooks are recommended, but not strictly required. Specific editions are not important, but reading references will be based on this. All readings are optional, but will help significantly with the course and your future career in game development.

Note: All of the below books are also available as free e-books through Carleton's O'Reilly portal available here: https://library.carleton.ca/node/16228 - there may be some restrictions on availability.

- (Highly Suggested) Tracy Fullerton, Game Design Workshop, 3rd Edition, 2014
  A practical overview of the process of brainstorming, designing, creating, and releasing games

  A game design theory book with hundreds of practical questions to help examine your game and improve it over time. Most valuable after some experience practically creating games.

Additional resources will be made available on the course web page. These include a course calendar, additional readings, supplemental videos, discussion forums, and more.

Objectives: The goal of this course is to introduce you to the fundamentals of game design and enable you to intentionally design and develop gameplay experiences. By engaging in all of the course content, you should be able to brainstorm a game concept, design the game, incrementally improve the game over time, and develop both tabletop games and digital games using the Godot Game Engine.
Topics Covered: A detailed list of prospective topics is available on the course web page. We begin by learning design fundamentals, applying this in tabletop games and playtesting with peers, learn to work as a team, then wrap up by developing a game in the Godot Game Engine. Below is a list of topics we'll cover, and what a student that completes all coursework should be able to do with it:

- **Godot Game Engine**: Implement simple computer game prototypes using the Godot Game Engine and GDScript, a Python-like scripting language made for the engine.
- **Build Your Game Vocabulary**: Define a game and describe the different types of games
- **Demonstrate an Understanding of Game Decomposition, Including**:
  - The game loop, MDA Framework
  - The taxonomy of fun
  - Artificial intelligence in games, finite state machines
  - Probability, combinatorics for games
  - Narrative structures in games, including the hero’s journey, worldbuilding
- **Explain the principles of game design** and the **incremental process** involved in designing games
- **Apply introductory knowledge of game project management** to plan a project and communicate effectively in team settings

Please note that you are expected to learn much of the Godot game engine on your own before the final project, and should take the time to review the official guides and try out the tutorials before the winter break: [https://docs.godotengine.org/en/stable/](https://docs.godotengine.org/en/stable/)

### 2. Assessments

This course widely revolves around your ability to create engaging games, to build a vocabulary to examine games through, and to work together and communicate in teams. To accomplish this, there are a diverse set of assessments:

1. **5 Weekly Assignments**: Each week before reading week, you will be asked to design and test one game each week, with a given prompt. You will need to submit a one sheet instruction manual and answer a few short questions about the design process of each game. Teams will be formed at tutorials and submissions are due prior to the start of the next tutorial (multiple assignments carry forward).

   The assignment prompts are as follows (subject to change):
   - (Team A) Paper Prototyping: Design a game from a starting goal, test it, and provide instructions.
   - (Team A) Radical Revision: Take the previous week’s game, playtest it, find what’s fun, and radically revise the game to emphasize the most fun parts.
   - (Team B) Disruption: Take an existing game and radically disrupt one major aspect of it, then test how well the game works.
   - (Team C) Workplace Game: Take a workplace or hobby and attempt to recreate the feeling of engaging in that work through a paper prototype.
   - (Team C) Attempted Digitization: Do your best to digitize the workplace game. You are not expected to complete this, but instead to have a safe place to experiment and learn what’s difficult in this process before the final project.
2. **Tutorials:** The tutorials will be used to form teams for each weekly assignment and work on your assignments together as a group with TA guidance. The majority of the work for each assignment is expected to be completed during tutorials, but some work outside of the tutorial is also expected. **If for any reason you cannot attend a tutorial, you will still be expected to complete the assignment individually, on time.** Some grades rely on having your games played and tested during tutorials. If you absolutely cannot attend, you must seek office hours with a TA or the instructor, schedule a playtest on the class Discord server with peers, or make arrangements with the instructor to attend another tutorial section to have your game tested. **Assignments/Tutorials Begin on Monday, January 16th.**

3. **Progress Reports, Peer Evaluations:** During the final project, you will be expected to fill out short, weekly progress reports which detail what you have worked on and what you plan to work on. In addition, each team you work in will require a peer evaluation to be filled out. Only the final project evaluation is used for grading, but the other evaluations are used to help the instructor identify any struggles before the final project begins.

4. **Final Project:** In the second half of the course, you will form a final team to pitch, design, and implement a game in the Godot Game Engine. You must provide weekly progress reports to make sure the team is on track each week - saving the work till the last minute is not an option.

5. **Side Quests:** A selection of "Side Quests" will be available on Brightspace. These are small tasks you can choose to complete, each rewarding a certain percentage for completing. There will be suggested side quests, but you are free to choose any you would like to fulfill these requirements. You may also propose side quests to the instructor if you feel there are fun related side projects you would like to engage in! **Importantly:** 4% of your side quest grade is **due** before the start of winter break. Details on Brightspace.

6. **Asynchronous Quizzes:** There are two fixed-duration quizzes within a 48-hour window, starting on Feb. 8th and March 22nd. They must be completed alone; however, we will work on the honour system and there will be no e-proctoring in place. The first quiz covers design theory and game decomposition, and the second covers more technical skills. **One quiz will be worth 10%, the other 15%. The worth will be selected based on which you best performed to provide you with the highest grade.**

   Assignments (5x6%, Due within one week)......................... 30%
   Project Progress Reports (5x1%, Weekly, Due in Tutorials) .............5%
   Quizzes (Online Asynchronous, 1x10%, 1x15%)..........................25%
   Side Quests (Brightspace, up to 5% bonus)..............................10%
   Final Project (Due April 10, 11:59 AM ).................................30%

**Tutorials and Assignments:** You are required to attend all tutorials so that you can form groups, receive guidance from TAs, and have guaranteed availability for work sessions with your teams. **If you can not attend a tutorial,** you must still catch up and complete the assignment individually, on time. **Note:** Part of the learning objectives of the assignments is to learn how to "scope" your game to be playable in the shortest amount of time. This means that while extensions and makeups are available upon request in extenuating circumstances, the time crunch involved in these assignments is to promote smaller, more realistic ideas.
Teamwork and Participation: Students are each expected to provide roughly equal input to group work. If you are strictly unable to participate for extenuating circumstances, please contact the instructor immediately to discuss arrangements. We will be using a series of peer evaluations to identify anyone that might be struggling to uphold their side of the group work - please fill these out openly and honestly so that we can help everyone perform their best. If you are personally struggling with contributing, or you have a member that is completely absent in their work, please reach out to the instructor immediately. Bringing up critical issues after the assignment has been submitted is not an option for accommodations. It is your team’s responsibility to start the work early to catch any issues early.

Collaboration Policy: This course expects a lot of collaboration within teams, and receiving playtest feedback from other students. You are not allowed to work on any other team’s work, outside of providing playtest feedback. You are required to participate in all different disciplines of tasks involved in the course, as discussed in class. If it is found through peer evaluations and progress reports that you did not partake in design, development, and playtesting by the end of the year, this is grounds for deductions at the instructor’s discretion.

If you are unsure of what is expected of you, or are unsure of what constitutes inappropriate collaboration, please ask the instructor and review the academic integrity information. To further clarify:

- **You may not** use code provided by other students outside of your own teams. Any code used from online sources must be cited in comments and progress reports, and must be used sparingly; Check in with the instructor before using more than two lines of code from online sources in a submission
- **You may not** give out your code to students in other teams, though you can provide links to helpful resources or help explain general concepts
- **You may not** work on assignments with other students, friends, or family outside of your team, however you may show off in-progress work for playtesting purposes
- **You may not** talk to anyone while taking the midterm quiz or discuss the quiz until grades are released

### Quiz and Assignment Exemptions:

If you are ill during the period of a quiz or tutorial, you may be granted an exemption only if you submit a copy of Carleton’s official Self-Declaration Form (in lieu of a medical certificate) available online here: https://carleton.ca/registrar/cu-files/covid-19-self-declaration-form/

Students cannot for any reason be exempted from more than one (1) quiz and one (1) assignment. A self-declaration form must be emailed to the instructor within seven days of the missed assessment.

The final project can not be exempt.

Make-Up Policy: If you are unhappy with the grade of an assignment or absolutely cannot complete it for any reason, please recall that you can receive up to a 5% bonus on your final grade by completing additional side quests. If you would prefer to submit a make-up, you may complete and re-submit a single assignment to the “Make-Up” Submission on the course website at a 10% deduction (a maximum grade of 90%) any time before March 17th and this grade will replace the original submission grade.
3. Course Modality

This course involves in-class activities, graded quizzes, and discussions, and thus must be synchronous, or live-streamed. We will be meeting on Zoom for lectures.

You will also need to be able to attend the course Discord during lectures for in-class group activities. Make sure your attendance method allows you to attend both Zoom and Discord simultaneously.

You are expected to attend every class. Class recordings will be posted up to one week later, but you may miss out on important in-class activities and discussions and recordings should not be relied upon as a consistent replacement for attendance.

While you are not strictly required to have a camera on, it is very highly requested to help with group conversations. You must have a working microphone to interact with each other. Please be aware: if you turn on your camera or speak during lectures (which is both allowed and encouraged), you may appear in the recording that is posted to Brightspace. You are not permitted to share these recordings to help maintain privacy.

Please note that by participating in these lectures, either online or in-person, that you may be included in these recordings. When attending on Zoom, Zoom will always notify meeting participants that a meeting is being recorded. It is not possible to disable this notification.

Please note that modalities may change if necessary - for example, courses may be pre-recorded or online-only if the instructor falls ill.

4. Communications Policy

The only emails sent directly to TAs and the instructor should require the confidentiality of direct email.

Importantly: Before emailing, check the Discord, review the syllabus, check announcements, and review lecture intros. Anything easily answered by these components may be ignored, or possibly redirected to the material to evaluate for yourself.

There are three major communication channels you need to be aware of for this course:

- **Discord**: Discord will be the primary place to post general questions about the course, attend tutorials, and hold office hours. Information for accessing the Discord will be available on Brightspace and announced via email.
- **Email Announcements**: While Discord will have the most announcements, severely important messages will be sent via Brightspace announcements and should be checked daily.
- **Assessments, Tools**: Brightspace will be the primary source for all course material, including assessment specifications, additional readings, calendars, and quizzes. Please review the page occasionally for updates.
You should not email regarding:

- **Assignment Clarifications:** Unless you must show your implementation, or discuss your own code, this does not have confidential information and publicly discussing clarifications helps all students.
- **Due Dates:** All due dates are posted on Brightspace and/or in the course outline.
- **Grade Release:** Grades should be released on a regular schedule, but if you are truly concerned about when grades are released, you can post publicly to ask.
- **Policy Questions:** As the policies are all public information, as long as it is a general inquiry about what a policy means, this should be asked publicly. Of course, if you are inquiring about personal circumstances, send an email privately.
- **Material Questions:** If you are uncomfortable asking publicly, I’m still happy to help in private via email or we can schedule an office hours appointment, but please consider that other students likely have the same question as you and would benefit from hearing the response. If you are comfortable posting questions about material publicly, it can promote valuable discussion!
- **For technical issues** first look on the course website, then the SCS technical support page, then inquire with the teaching assistants who may forward your concern to the instructor.

**Students must behave in a professional manner** in all communications. Any communication that is seen as discourteous and unprofessional may be moderated, ignored, or in the worst case reported to the university.

**Please Note:** The content of your communication and your submissions should be professional and work-friendly. Communications or subject matter content that is deemed highly offensive or inappropriate may be forwarded to the dean for possible disciplinary action.

Students are expected to check their Carleton email addresses and Discord announcements daily for updates. For convenience, you can set up your Brightspace notifications to reduce email volume. Note that you should not expect responses outside of business hours (8:30AM - 5:30PM, Monday-Friday). Due to high volumes, expect up to three-business days to receive a response. Plan ahead and try to ask questions before the weekend or evenings. Anyone not following the communication guidelines risks having their communication go ignored or redirected, so please make an effort to follow the guidelines as best as you can.

### 5. Important Course Policies

**Not following submission guidelines is grounds for a zero.** If your submission does not match the submission requirements exactly (which are clearly posted on each assignment), your submission may receive a zero. Make sure to double check the submission guidelines before and after submitting your assignments online. If the requirements are unclear or you are otherwise incapable of meeting them, meet with a TA during office hours, post to Discord, or finally contact the instructor.

**If your submitted code does not run for any reason, or if instructions for play are incomplete or unclear, it may receive a mark of zero.** It is recommended that as soon as you upload your assignment, you should download and run it again to make sure everything was submitted correctly, and make sure to submit clear and complete instructions.
The final project submission is final. Consider your final project with the same importance you would consider a final exam - once the project submission time is reached, there is unfortunately very little room for any kind of additional accommodations. Ask questions ahead, triple check your submissions, and feel free to come by office hours to check-in on your submission in advance. We can not provide detailed grading notes, but can discuss general points about your submission.

It is your responsibility to dispute grades within one week of receiving them, if there is an error. Concerns must first be communicated to the teaching assistant that graded the assessment, then if the result is unsatisfactory, can be forwarded to the instructor. After one week, no further consideration will be offered and marks will not be changed.

Office Hours: TA Office hours are available to help with material, assignment disputes, or assignment clarification. TA office hours schedules will be posted and made available to the course website. If you require additional support with the course material, you may request office hours with the instructor following the instructions posted to the course website. While I encourage requesting office hours to get the support you need early, please understand that availability is limited and not all requests may be fulfilled.

6. Special Considerations

It is important to remember that COVID-19 is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real.

There are a number of actions you can take to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you’re sick, washing your hands and maintaining proper respiratory and cough etiquette.

**Feeling Sick?** Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton’s symptom reporting protocols.

**Masks?** Carleton has paused the COVID-19 Mask policy, but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

**Vaccines?** While proof of vaccination is no longer required as of May 1 to attend campus or in-person activity, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible, and submit their booster dose information in cuScreen as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.
All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton’s COVID-19 website (https://carleton.ca/covid19/) and review the Frequently Asked Questions (FAQs) (https://carleton.ca/covid19/faq/). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.

**Doctor’s note or medical certificate**: in effect for Winter 2023 term. In place of a doctor’s note or medical certificate, students are advised to complete the self-declaration form available on the Registrar’s Office website to request academic accommodation for missed course work including exams and assignments. Students should also discuss with the course instructor the required accommodations arising from the COVID-19 situation.

### 7. School of Computer Science Information

**Undergraduate Advisor**: 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/

### 8. University Policies

For information about Carleton’s academic year, including registration and withdrawal dates, see Carleton’s [Academic Calendar](https://carleton.ca/).

**Pregnancy Obligation.** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit [Equity Services](https://carleton.ca/).

**Religious Obligation.** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit [Equity Services](https://carleton.ca/).

**Academic Accommodations for Students with Disabilities.** If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the [Paul Menton Centre website](https://carleton.ca/).
**Survivors of Sexual Violence.** As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](carleton.ca/sexual-violence-support)

**Accommodation for Student Activities.** Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).

**Student Academic Integrity Policy.** Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Examples of punishable offences include: plagiarism and unauthorised co-operation or collaboration. Information on this policy may be found [here](#).

**Plagiarism.** As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean of Science. Standard penalty guidelines can be found [here](#).

**Unauthorised Co-operation or Collaboration.** Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.

...And I hope you enjoy the course and have a great term!