

Carleton University School of Computer Science  
INTENSIVE GAME DEVELOPMENT PROJECT  
COMP4900

TENTATIVE Course Outline (Summer 2021)

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<b>Instructor:</b> Connor Hillen	<b>Time:</b> Tue. Thu. 18:00 – 21:00
<b>Email:</b> <a href="mailto:connorhillen@cmail.carleton.ca">connorhillen@cmail.carleton.ca</a>	<b>Place:</b> Zoom (refer to course page)

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Course Page: <http://brightspace.carleton.ca/>

## 1. About the Course

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**Course Description:** In this course, all students will work together as a single group to develop a game using modern game engines. Students will be assessed on their ability to work together as a group, set and achieve reasonable expectations, and incrementally design and implement a game at the guidance of the instructor. The first term of the course consists primarily of lectures on game design and project management, followed by meetings, planning, and work sessions to emulate realistic work practices.

**Office Hours:** 17:00 - 18:00 (Tue. Thu.) on Zoom (one hour prior to lecture) **by request only**. Due to the nature of this course, office hours have not typically been required. If you would like to schedule office hours, contact the instructor via email.

**Attendance:** Attendance is critical in this course. The majority of lectures consist of meetings necessary for the completion of the project and meeting participation will be graded.

**Textbooks:** There is no mandatory textbook for the course, but a few texts referenced within the course are listed below for your interest. These are available as e-books via the Carleton library or their official websites. Each of these cover a different topic which may be useful to know in the course and may be occasionally referenced. More references may be made available on Brightspace.

- **(O'Reilly Books)** Clinton Keith, *Agile Game Development with Scrum*, Addison-Wesley Professional 2nd Edition, 2020.
- **(O'Reilly Books)** Jesse Schell, *The Art of Game Design: A Book of Lenses*, A K Peters/CRC Press 3rd Edition, 2019.
- **(Online)** Robert Nystrom, *Game Programming Patterns*, Genever Benning, 2014.

**Online Resources:** Class notes, links to software, links to additional resources, and project submissions will all be on the Brightspace course page. Additional external tools may be used at consensus of the class. Many resources may be posted on Brightspace, but you will not be expected to know all of the content from every resource. Most resources will be there for your interest unless otherwise specified.

**Prerequisites:** COMP 2401, COMP 2402, and COMP 2404. From these courses, you are expected to have some proficiency writing code in C-like languages, basic software planning, as well as selecting and applying data structures. You are expected to have some experience with games or be able to get some experience with games.

**Objectives:** The goal of this course is to gain practical game design and development experience using modern project management techniques and industry standard tools. By the end of this course, you should have realized a completed, playable, and polished game and have an understanding of how agile project management methods work in practice during a short game development life cycle.

**Topics Covered:** The first few weeks of the course will focus on teaching fundamental concepts of game design, game analysis, creativity, agile methods in software development, and the rapid prototyping of games. After this, much of the course will focus on how agile methods are applied to game development. Following this material, the course lectures will be used to gain practical experience applying agile techniques to the development of a product by holding meetings and work sessions in-lecture.

**Grading:** In this course, you will be submitting a prototype as an individual and writing a midterm about agile practices in game development. The course consists of regular meetings with formal practices which must be followed for full marks in meeting participation. Teaching assistants will provide playtests, each of which will be assessed based on the goals set out in the weeks prior. Peer evaluations may be used to adjust project grade for individuals. Dates presented in this outline are subject to change based on student input during the course. Number of demonstrations and meetings may increase or decrease, but the category's total weighting will remain the same. **Note:** The assessment breakdown here is tentative and subject to change before the start of the term. Midterm date subject to change with minimum 2 weeks notice.

Individual Prototype (Due May 13) .....	5%
Midterm (In class, June 17) .....	15%
Meeting Contributions (5 meetings) .....	5%
Project Demonstrations (4 demos) .....	15%
Term Project .....	60%

**Project Breakdown:**

Project Proposal (Group, Due May 20) .....	10%
Project (Group, Due August 12) .....	40%
Project Report (Individual, Due August 16) .....	10%

**Collaboration Policy:** For individual assignments, no collaboration with other students is allowed. For the course project, students will be working together as a single group and are expected to divide the work equally and fairly.

## 2. SCS Support

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**SCS Computer Laboratory:** SCS students can access one of the designated labs for your course. The lab schedule 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/technical-support/>. Technical support is available in room HP5161 Monday to Friday from 9:00 until 17:00 or by emailing [SCS.Tech.Support@cunet.carleton.ca](mailto:SCS.Tech.Support@cunet.carleton.ca).

**Undergraduate Academic Advisors:** The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP; or by email at [scs.ug.advisor@cunet.carleton.ca](mailto: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.

### 3. University Policies

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**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 unauthorized 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.

**Unauthorized 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.

**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](mailto: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](#).

**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](#).

**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](#).

**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: <https://carleton.ca/sexual-violence-support>

**Medical Certificate:** The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to <http://www.carleton.ca/registrar/forms>