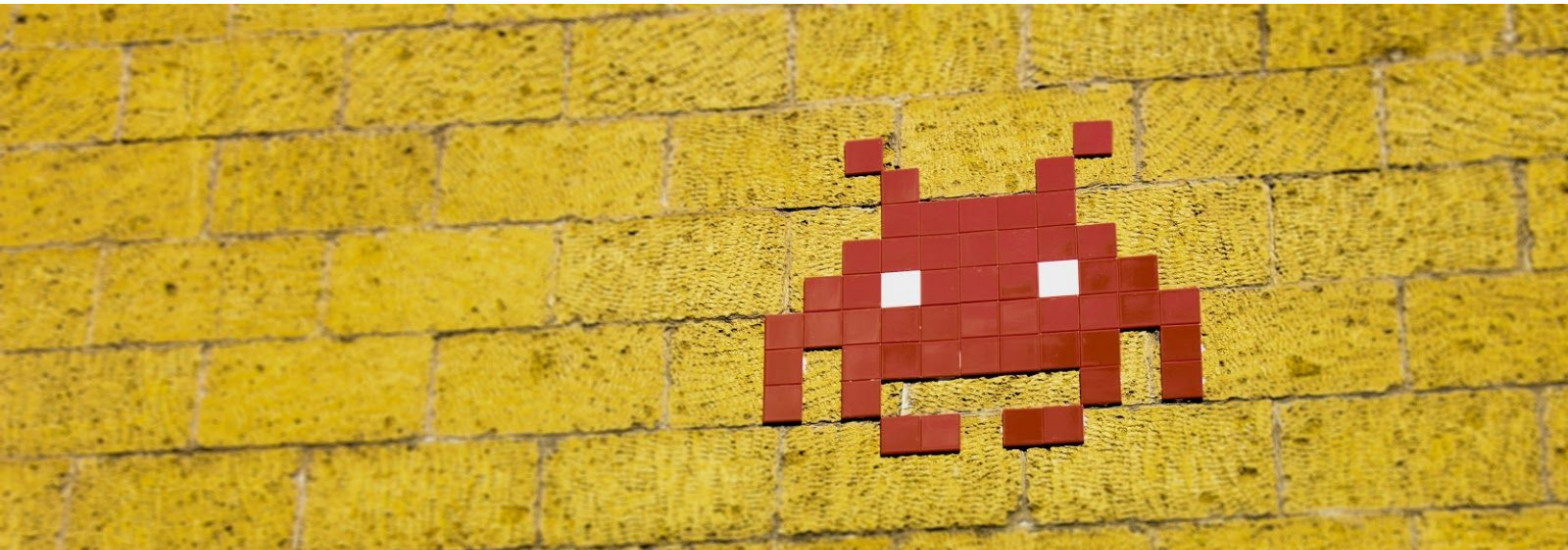


# Game Programming

CS 321 / CS 617

Fall 2019



## Hello!

My name is Carmine T. Guida and welcome to Game Programming! Games have existed for thousands of years and the advent of video games provides a new medium for expressing your creativity through programming.

### What you build in this class will be unique to you!

This online course is similar to your other courses in that it has lectures (as videos), projects, due dates, and participation with other students. **Blackboard** is the hub of activity in this class.

**Check Blackboard frequently** and look for announcements to see what is going on each week.

Email me [cguida@pace.edu](mailto:cguida@pace.edu) with any comments, questions or concerns. Always use your @pace.edu email address.

---

## What will I learn and be able to do by the end of this course?

You will be able to create simple 2D and 3D games. You will learn about vectors, coordinate systems, sprites, models, collisions, physics, lighting, audio and creating your own behaviors through scripting in C#. You will also gain familiarity with the Unity game engine.

---

## Is there a textbook for this course?

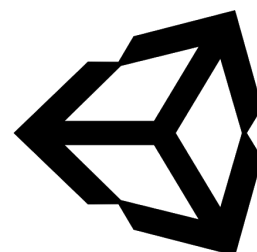
There is no textbook for this course. All instruction is through the course videos and Blackboard.

---

## What kind of computer and software do I need?

You need to use either a Mac or Windows computer. You do not need a powerful machine as we are not writing anything super complicated. We will be using the Unity game engine. You can use the personal edition for free:

<https://unity.com/>



---

## What is the schedule of topics each week?

This list might change a bit throughout the semester. The schedule for each week is as follows:

- |                                   |  |
|-----------------------------------|--|
| 1. Introduction                   | 9. Intro to 3D                             |
| 2. Game Objects and Components    | 10. 3D Physics and Spawning                |
| 3. Input and UI                   | 11. Game Controllers                       |
| 4. Scenes, Building and Deploying | 12. Cameras, Lighting                      |
| 5. 2D Physics                     | 13. Prototyping, Polishing and Playtesting |
| 6. Tiles and Tilemaps             | 14. Asset Store, 3D Audio                  |
| 7. 2D Audio                       | 15. Bonus Topic!                           |
| 8. Midterm                        | 16. Final                                  |

---

## How does the grading work in this class?

Your grade is based on the following:

Participation:	5%
Projects (15% each):	60%
Midterm Secret Project:	15%
Final Secret Project:	20%

There are no curves in this class. The grading scale is as follows:

93 - 100	A	73 - 77	C
90 - 92	A-	70 - 72	C-
87 - 89	B+	67 - 69	D+
83 - 86	B	63 - 66	D
80 - 82	B-	60 - 62	D-
77 - 80	C+	0 - 59	F

---

## Participation?

Yes! We will be discussing various topics in the discussion boards and **you will all share links to your games** so that others in the class can play them! If you have not yet done so, signup for a free account at itch.io. It's a website for hosting games playable inside a web browser.

<https://itch.io/>



---

## How are the projects submitted?

**You must submit your code by the due date as a .zip file to Blackboard in the Assignments area.**

There will be a discussion board post **after the due date**. You will reply with an unlisted itch.io link to your game.

---

## What are the due dates for the projects?

**Get started early!** Here are the due dates for the projects. Always check Blackboard for updates on due dates and assignment details. Late projects will have 10 points deducted per day.

Project 1: Game of Primitives (2D)	<b>Sunday 9/29/2019 11:59pm</b>
Project 2: Platformer (2D)	<b>Sunday 10/20/2019 11:59pm</b>
Project 3: Endless Runner (3D)	<b>Sunday 11/17/2019 11:59pm</b>
Project 4: Student's Choice (3D)	<b>Sunday 12/8/2019 11:59pm</b>

---

## How do we take an exam in this online course?

Instead of in-person exams, you will be given a **short project** to do **over a weekend**. The project will be released early Saturday morning and due Sunday evening.

Midterm Secret Project	<b>Saturday 10/26/2019 08:00am - Sunday 10/27/2019 11:59pm</b>
Final Secret Project	<b>Saturday 12/14/2019 08:00am - Sunday 12/15/2019 11:59pm</b>

---

## Academic Integrity

Project 4 is the only team project, otherwise all work in this class is to be your own! Plagiarism is strictly forbidden! Students are responsible for being familiar with the Academic Integrity Code:

<https://www.pace.edu/student-handbook/university-policies-disciplinary-and-grievance-procedures>

---

## Continuity Plan

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to change when necessitated by revised course delivery, semester calendar or other circumstances. Information will be communicated online. If the course is not able to meet face-to-face, students should immediately read any announcements and/or alternative assignment. Students are also encouraged to continue the readings and assignments as outlined on this syllabus or subsequent syllabi.

---

## Accomodations

Procedure for Students with Disabilities Who Wish to Obtain Reasonable Accommodations for a Course: The University's commitment to equal educational opportunities for students with disabilities includes providing reasonable accommodations for the needs of students with disabilities. To request a reasonable accommodation for a qualified disability a student with a disability must self-identify and register with the Office of Disability Services for his or her campus. No one, including faculty, is authorized to evaluate the need for or grant a request for an accommodation except the Office of Disability Services. Moreover, no one, including faculty, is authorized to contact the Office of Disability Services on behalf of a student. For further information, please see Resources for Students with Disabilities at:

<http://www.pace.edu/counseling-center/resources-students-disabilities>

