

CSCE 4210 Game Programming I

CSCE 5250 Introduction to Game Programming

Instructor Contact

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Meets: Mondays 7:00pm-8:50pm in NTDP E265

Communication Expectations: The best way to reach me outside of class/office hours is via email. During the week I will respond to your email within 24 hours. During the weekend, response time may be longer. This includes personal concerns or questions about the class or an assignment. The TA's and I strive to get grades back between 1-1.5 weeks from the due date, though that is not always possible when the class is large. Communication is expected to be professional and respectful. [Online Communication Tips](https://clear.unt.edu/online-communication-tips) (<https://clear.unt.edu/online-communication-tips>) are available. **Please include "CSCE 4210" or "CSCE 5250" in the subject line of all emails.**

Course Description

You will experience the process followed by a startup game dev team by learning a new code base and using it to design and code a game using a revision control system.

Course Prerequisites or Other Restrictions

You are required to have passed CSCE 3110 (Data Structures and Algorithms) with a grade of C or better.

Course Objectives

Course outcomes are measurable achievements to be accomplished by the completion of a course. These outcomes are evaluated as part of our ABET accreditation process. By the end of this course, students will:

1. Be familiar with Windows programming.
2. Be able to use Visual C++.
3. Be able to use the Microsoft DirectX 12 SDK and DirectXTK12.
4. Be able to program a 2D, 2.5D, or 3D game.
5. Be able to work in a team with other programmers using Subversion.
6. Be able to code a major part of a game.

Required Materials

Access to a Windows 10-11 Gaming PC is mandatory. Prior experience with Visual C++, DirectXTK12, and Git is useful but not required.

Teaching Philosophy

In this course, we embrace a hands-on and immersive approach to learning that mirrors the challenges faced by professionals in technical fields. I believe that true mastery is achieved through direct engagement and active problem-solving. Just as industry professionals often encounter unfamiliar code bases and technologies, you will navigate the terrain of a new game engine. By working on a single project for the semester I believe you will gain depth and expertise, mirroring real world projects.

I am committed to fostering an environment where experimentation is encouraged, mistakes are valued as opportunities for growth, and collaboration thrives. As you embark on your project, you will not only gain proficiency in technical skills but also develop critical traits such as adaptability, resilience, and effective communication. Ultimately, this course aims to equip each of you with not only the practical abilities to excel in the realm of game development but also the confidence to tackle any new challenge you encounter in your professional endeavors.

Course Requirements

Grades will depend on the quality of your group's game and the size and significance of your code. Other factors that can reduce that grade are: Performance on the recitations, proper use of the revision control system, contribution to the pitch and milestone, and the final group interview.

Area	Percentage of Final Grade
Laboratory Assignments (x5)	10% (about 2% each)
Pitch Presentation	5%
Revision Control and Milestones	5%
Your Game	75%
Group Interview	5%

If you believe that there is a mistake in the grading of one of your assignments, you must bring these inquiries to the professor within one week of when the assignment is returned. After this period, it is too late to consider, except for an arithmetic error in calculating the score.

Late work will not in general be accepted. Exceptions can be made for unavoidable and unforeseen circumstances such as serious illness, family emergency, zombie apocalypse, or civil war.

Recitations

There will be 6 recitations during each of which you will perform a short programming task. Completion of the task during the lab session in which it is assigned will earn you one point. Completion during the following lab session will earn you half a point. **You will lose a letter grade for every two points missed.**

Course Calendar

It is hard to anticipate the exact dates of activities, but here is a tentative list.

Week	Date	Major Topics	Due
1	8/18	Introduction	
2	8/25	Game Design	Team formation, Lab 1
3	9/1	Labor Day (no class)	
4	9/8	Tools	Lab 2
5	9/15	Pitch Presentation	Checkpoint 1
6	9/22	The Code Base	Lab 3
7	9/29	2D Games	
8	10/6	2.5D Games	Lab 4
9	10/13		Checkpoint 2
10	10/20		Lab 5
11	10/27		
12	11/3		Checkpoint 3
13	11/10		Lab 6
14	11/17		
15	12/1	Group Interviews	Checkpoint 4

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. When SPOT becomes available (generally in the last week or so of the course) you will receive an email. I offer a small amount of extra credit if class participation is over 80% of the students.

Course Policies

Attendance

Attendance during lectures is encouraged. Attendance will not be taken after the mandatory period. You are responsible for all material covered during lectures.

Syllabus Change Policy

The instructor reserves the right to change the course as needed.

UNT Policies

Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of

academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

Based on this policy, any form of “unauthorized assistance” constitutes cheating. If the use of artificial intelligence is not authorized for the assignment in question, then a violation has occurred.

ADA Policy

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website \(https://disability.unt.edu/\)](https://disability.unt.edu/).

Emergency Notifications and Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.