CS 230: Computer Graphics

Syllabus

Winter 2025

General

- MWF 12:00 PM - 12:50 PM, Sproul 2225
- Website: `http://www.cs.ucr.edu/~craigs/courses/2025-winter-cs-230/index.html`
- Textbook: Fundamentals of Computer Graphics, by Shirley, Ashikhmin, Marschner

Instructor

- Craig Schroeder
- Office Hours: MWF 1:00 PM - 2:00 PM, Chung 309, or by appointment
- Email: craigs@cs.ucr.edu

Structure

Website The course website contains the course schedule, topics, and notes. Projects will be distributed and collected through Canvas. Announcements will also occasionally be made through Canvas.

Projects This course will have three programming projects, which you may work on with a partner. The first two projects are structured and will be submitted twice. The first is a checkpoint, which is intended to encourage steady progress on the project. Details of how much must be done by each checkpoint will be available on Canvas. Both projects come with a grading script, which will allow you to track your progress on the projects as you work on them. The grading script will tell you exactly what grade you will receive before you submit each project or checkpoint. You have two free late days, which you may apply to these projects or checkpoints. You may apply one late day to each of two submissions; no submissions are accepted more than one day late, and no late submissions will be accepted once these late days are exhausted. These will be submitted on Canvas.

The third programming project is a task of your choosing. The project should be related to physically-based simulation, though alternatives may be approved under special circumstances. You will submit a writeup for this project and make a 10-minute presentation (with your partner if you have one) to the class during the final exam timeslot for the course. There is no midterm or final exam.

Participation In-class participation is required and will include occasional brief (typically 5-minute) quizzes; there are typically 5-6 quizzes per quarter. These quizzes are intended to be straightforward if you are attending class and following the material presented in class. Quizzes may be given at the beginning or end of class. They will cover material over the past two weeks, up to and including the previous lecture. There are no make-up quizzes, but the lowest two quiz scores will be dropped.

Grading Your grade will be computed according to the grading scheme below. All students **must** complete the academic integrity quiz in order to receive a nonzero grade for the course.

Item	Contribution
Project 1 checkpoint	10%
Project 1	20%
Project 2 checkpoint	10%
Project 2	20%
Project 3	20%
participation	20%

Academic integrity

Projects may be completed with a partner, but exams/quizzes must be completed individually. The following are **not allowed** in this course. For the purposes of this course, they are violations of academic integrity. Violations of academic integrity will result in a score of 0 for the relevant assignment **and** a lowering of the final course grade by one letter grade (e.g., from A to B). In more severe or repeat cases, violations will result in an 'F' for the course and a referral to the campus academic integrity committee.

- Working on any graded component of the course with another student (other than your partner) or sharing solutions with another student.
- Asking or paying anyone to complete any portion of the course for you.
- Copying or referring to homework solutions, code, or pseudocode from any source (other than course resources such as lecture notes or the course textbook).
- Working on homework in a *public* Github repository (or anything else that results in your work being visible to other students or visible publicly), whether during or after the course. Working in a *private* Github repository is permitted, provided that repository stays private forever and is never shared. If you wish to share your code from this course with potential employers, please do so privately.
- Looking up answers/hints to homework or coding problems online. ("Researching the question.") The Internet is a very useful resource, and there are many reasonable places for it in this course (C++ library reference, as a supplement to lectures, further information on interesting topics, etc.) But there is a fine line between using the Internet as a tool for learning and using the Internet as a tool for cheating. **If you are not sure, ask.**

The following are explicitly **allowed**.

- Office hours (TA or instructor) are a great resource if you are stuck on a problem or otherwise struggling.
- You are allowed to work on projects with your partner
- There are no restrictions on using resources from the course (course textbook, lectures, lecture notes, course website, etc.).
- You may use past exams from this course as study aids. They are publicly available from the course websites from prior quarters.
- There are no restrictions on studying for exams with other students.

If you find yourself struggling in the course, *seek help early.* The longer you wait, the fewer options will be available.

Start assignments early, especially coding parts. If you start the night before, your chances of successful completion are slim. Although the coding is not intended to take a long time, the time required for debugging is unpredictable and varies wildly from student to student.