

MAT 494 — SpTp: Computer Graphics, Spring 2005

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Phone: (410) 810-7485 **Office:** Goldstein 213
Office Hours: MW 9:30am–10:20am, Tu 2:30-3:20pm or by appointment
Class meetings: TR 1:00pm-2:15pm DALY 108
Text: *OpenGL Programming Guide: Fourth Edition*
by OpenGL ARB, Shreiner, Woo, Neider and Davis

Overview: Computer graphics has revolutionized the computer industry. We can see computer graphics in movies, games, simulations, and mechanical designs. There are many types of graphics systems, but many use the same transformations, viewing, and modeling methods. While advanced graphics systems may use more complex methods (like perception and shading models), a foundation in basic computer graphics is necessary to completely understand those concepts.

Topics: In this course, we will cover the fundamentals of graphics pipelines and programming. Students will learn basic graphics concepts such as mid-point algorithms, z-buffers, double buffering, transformations and viewing, color, lighting and texturing. Other topics include precise implementation of these items in OpenGL.

Advising: Strong programming skills are required to take this course.

Grading: There will be two exams worth 10% each. There will be weekly assignments worth 60% of your final grade. Lastly, there will be a final project in lieu of a final exam, that will be the last 20% of your grade. Weekly assignments are due on Friday night at 11:59pm. For programming assignments, credit is given only for programs which compile and execute properly. For each day that homework is handed in late, a 10% deduction is applied. Thus, if you hand in your homework 3 days late, your maximum score is 70%.

Exams: Exam dates are set for March 1st and April 26th. An absence on the day of an exam will result in a grade of a 0. Except in cases of extreme emergency, exams must be taken on the day the exam is administered. Before a make-up exam is scheduled, documentation of the extreme emergency must be given. Make-up exams for tests missed due to an extreme emergency

will be arranged for a time that is mutually convenient for the student and Dr. Ramsey.

Attendance: Attendance will be taken at the beginning of every class. On your fifth absence, you fail the course. There is no distinction between excused and unexcused absences. I will likely email you if you miss a class. Note that missing a class may also result in missed classwork. It is your responsibility to obtain assigned homework, announcements and class notes from that class. It is important that you attend every class. As a matter of courtesy, students are expected to inform Dr. Ramsey of the reason for any absence.

Academic Honesty: You are always subject to the Honor Code of Washington College. You may discuss concepts with others, but work is to be done on your own. If you are unsure if something is considered *cheating*, simply ask. As always, if you have questions, feel free to email or stop by my office.

Accommodations: If you have a special accommodation/need that has been reported to the college, please let me know discretely as soon as possible, so that I can work to meet your accommodation.

Suggestions: To become a good programmer and problem solver, you must work on many problems. Attempt problems that aren't assigned to help you learn the material. If you need help, please talk to your peers about the concepts or come see me.