

# CMSC 740 – Computer Graphics

Spring 2006 Lectures: Tuesdays and Thursdays 2:00 – 3:15pm CSIC 2107

Course Page: <http://www.cs.umd.edu/class/spring2006/cmssc740/>

**Professor:** Amitabh Varshney, 4407 AVW, (301)405-6761, [varshney@cs.umd.edu](mailto:varshney@cs.umd.edu). Office hours: Tuesdays and Thursdays 3:15 – 4:30pm, or by appointment. For an appointment, just drop by my office, or call me, or send me an email and we can fix up a time.

**Grader:** Derek Juba [juba@cs.umd.edu](mailto:juba@cs.umd.edu)

**Texts:** Our main textbook will be:

*Fundamentals of Computer Graphics*, Peter Shirley, Second Edition, ISBN 1-56881-269-8, A K Peters.

In addition, you may also find the following textbooks useful:

*Computer Graphics: Principles and Practice*, Second Edition in C, by James D. Foley, Andries van Dam, Steven K. Feiner, and John F. Hughes ISBN: 0-201-84840-6, Addison-Wesley.

*OpenGL 1.4 Programming Guide, Fourth Edition: The Official Guide to Learning OpenGL, Version 1.4* by Mason Woo (Editor), OpenGL Architecture Review Board, Jackie Neider, Tom Davis, Dave Shreiner ISBN 0-321-17348-1, Addison-Wesley

**Prerequisites:** MATH 240 (linear algebra) and CMSC 420 (data structures). Good knowledge of C/C++ programming. You should be able to independently design, code, and debug moderately sophisticated programs. You should also feel comfortable about concepts related to vectors (spaces and products) and matrices (inversion, products, transformations).

## Grading

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|-------------------------|-----|
| Assignments and Project | 45% |
| Mid-term Exam           | 20% |
| Final Exam              | 35% |

**Assignments:** Assignments 1 and 2 are each worth 7.5%, Project is worth 30% of the final grade. All submissions will be due on Tuesdays at the beginning of the class. Checkpoints: Tuesdays 3:30pm and Fridays 3:30pm. Late submission policy: 20% off for each checkpoint passed, except the first missed checkpoint in the semester is without penalty. Machine failures will not delay due-dates unless there is a massive catastrophe, announced by me as such. Assume that machine failures will happen and that contention for machines will occur. Start early. Grading for all assignments will be done on one of the following platforms: Sun workstations in CSD (junkfood) labs, or on a TA-accessible CS department PC. You can code and debug your assignments on any platform but you should give yourself enough time to recompile and possibly debug/reconcile your programs with one of the above platforms/environments so that they correctly execute on them.

**Video Shows:** From 1:55pm – 2:00pm, before each class I plan to show a video illustrating computer graphics. This is cultural: attendance is optional, and you will not be held responsible for knowing what is presented.

**Final Exam:** Final Exam will be 10:30am – 12:30pm on Wednesday, May 17, 2006.

**Academic Conduct:** I expect high standards of professional conduct and ethics. All work that you submit in this course must be your own or approved in advance by the instructor.