CIS160
Introduction to Computer Graphics
Fall 1996

Instructor:	Alex Pang (pang@cats) 243 Applied Sciences, 459-2712 Office Hour: 12:00-1:00pm Tue
TA:	Travis Heppe (heppe@cats) Office: B57 Applied Sciences Office Hour: M 1-2, TH 5-6
Lab Assistant	Zoe Wood (symbols@cats) Lab Hours: M 3-5, F 1-3
Class Time:	TTH: 10:00 - 11:45am
Classroom:	Applied Science 165
Main Text:	*Computer Graphics, 2nd edition* C version by Hearn and Baker
Additional Text:	*Computer Graphics: Principles and Practice, 2nd edition* by Foley, van Dam,Feiner, and Hughes *OpenGL Reference Manual* *OpenGL Programming Guide* by Neider, Davis, and Woo
Optional References:	*3D Computer Graphics, 2nd edition* by Watt *The VRML Sourcebook* by Ames, Nadeau, Moreland *Graphics Gems I .. V* by Glassner, Arvo Kirk, Heckbert, Paeth *CRC Standard Mathematical Tables* by Selby

Prerequisites: Math 12 or 17 (matrix manipulation, determinants, dot products, and cross products), and CIS 101 (data structures and C programming) or equivalent.

Grading Policies: 5 programming assignments (30%), homeworks (5%), attendance/participation (5%), 2 exams (20% each) and final project (20%). You need to pass all of the components in order to pass the course. There is no final exam. The second exam will be on December 5, 1996.

Exams are weighted 60-40 in your favor. Programs are due before class starts (i.e. 10am). Programs turned in at least a full day early will earn 1% bonus credit. Late programs will be charged 1% late points. Late programs and reports will not be accepted for the final project. The bonus credits may be accumulated up to a total of 50% toward program and final project credits. Programs are graded 80% for functionality and correctness and 20% for style, readability, documentation, and efficiency. Additional points may also be earned for extra features.

There will be no make-up exams, homeworks, or programs. There will be no incompletes given in the class.

Attendance: You should participate enough in the class lectures or outside of class (e.g. office hours) so that TA, Lab assistant, or myself know who you are. You are **required** to attend one of the regularly scheduled lab sections. Attendance/participation/effort is crucial in determining borderline cases at the end of the quarter.

General Policies: **All course work including homeworks, programs and exams are intended as individual effort and are graded as such.** It's okay to discuss general approaches and algorithms with other students, but this should be done **without writing, looking, or sharing code.** Cheating or plagiarism in any form will not be tolerated. Punishment will match severity of offense and may include an automatic PASS with an explicit discussion in the narrative evaluation records. You are responsible for protecting your homework solutions and programs from being copied by others. Do not discard printouts in public places. And don't forget to logout.

Graphlab Accounts and Keycode: The graphics lab machines in AS213 are managed by CATS. You will need a separate account than your regular CATS account, although you may want to use the same login name. You will also need a keycode to physically enter the AS213 lab.

Questions/Discussions: Aside from the classroom and laboratory, you can clear up any questions you might have during regularly scheduled office hours, or by appointment. You can also reach us and get your answers by email. In addition, we have the newsgroup `ucsc.class.cmp160` devoted to topics relevant to this class. Finally, we'll be putting handouts and other information on the web. Stay tuned for details.

Tentative Graphics Lab sections in AS 213 (choose 1):

Monday	Tuesday	Wednesday	Thursday	Friday
2-3		6-7	4-5	

Tentative Course Outline:

Week	Dates	Topic	Chapters	Exam	Homework Due	Program Due
0	Sep 26	Overview, accounts, ...	1, 2			
1	Oct 1 Oct 3	Line drawing, Area, polygon filling GL: openwin, primitives	2, 3			
2	Oct 8 Oct 10	Clipping Linear Algebra / video GL: picking	6 A			PGM #1
3	Oct 15 Oct 17	2D transformations 3D transformations GL: transforms	5 11			PGM #2
4	Oct 22 Oct 24	Viewing transforms Projections GL: viewing	9, 12			PGM #3
5	Oct 29 Oct 31	video / review xforms / vrml		EXAM #1	HW #1	
6	Nov 5 Nov 7	Hidden surfaces Scan conversion GL: zbuf	13			Preliminary Proposal
7	Nov 12 Nov 14	Parametric curves Parametric surfaces GL: light/materials	10			PGM #4
8	Nov 19 Nov 21	Shading Texture mapping, etc.	14			PGM #5 / Final Proposal
9	Nov 26 Nov 28	Color / VRML (Thanksgiving)	15			
10	Dec 3 Dec 5	Animation / review	16	EXAM #2	HW #2	
11	Dec 10					Final Demo / Writeup

Note: The final project demos will be in AS310 (tentative) from 4-7 pm on December 10, 1996.