

CS 148: Introduction to Computer Graphics and Imaging

Summer 2012

Course Description

Topics: Image input and output devices such as cameras and displays, graphics hardware and software, input technologies and interactive techniques, typography and page layout, light and color representations, exposure and tone reproduction, image composition and imaging models, digital signal processing, sampling, aliasing and antialiasing, compression, two- and three-dimensional geometry and formations, modeling techniques including curves and surfaces, reflection models and illumination algorithms, and basic methods of animation. Programming assignments using C++ and OpenGL. Prerequisites: CS 107, MATH 51.

1 Basic Information

1.1 Staff

- { **Instructor:** Justin Solomon
Office: Clark S297
Telephone: 650-725-6521
Email: justin.solomon@stanford.edu
Office hours: Tuesdays, 9am-11am; Fridays, 2:15pm-4:15pm (Clark S297)

- { **Course assistant:** Blake Carpenter
Email: blakec@stanford.edu
Office hours: Wednesdays, 2pm-4pm; Thursdays, 1pm-2pm (Gates B24)

- { **Course assistant:** Taesung Park
Email: taesung@stanford.edu
Office hours: Mondays, 2:15pm-4:15pm (Gates B24)

1.2 Class

- { **Lecture:** Justin Solomon
Time: MWF, 12:50pm to 2:05pm
Place: Skilling Auditorium

1.3 Web

The course web page, which will contain lecture slides, homeworks, announcements, and other important materials, can be found at:

<http://cs148.stanford.edu>

We will be using Piazza to host a course bulletin board and for some online announcements; be sure to register for the CS 148 page. All students are expected to register at:

<http://piazza.com/class#summer2012/cs148>

2 Course Policies

2.1 Grading

Your grade will be evaluated using the following distribution:

Item	Percentage
Homework 1	10%
Homework 2	10%
Homework 3	10%
Homework 4	10%
Homework 5	10%
Homework 6	10%
Midterm	15%
Final	25%

2.2 Late Assignments

Assignments are due at 11:59pm on the listed due date. You will be permitted a total of *five* late days over the course of the summer quarter (measured in periods of 24 hours); beyond this total, late assignments will lose 20% credit per day.

2.3 Textbook

CS 148 has an optional textbook, entitled *Fundamentals of Computer Graphics* by Peter Shirley et al. (3rd edition). We will be using our own assignments and lecture materials, but the text contains many implementation and mathematical details that we may not be able to cover in our fast-paced lecture schedule.