

CS 106A — General Information

Parts of this handout were written by Mehran Sahami.

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Lectures

Lectures are scheduled for Monday, Wednesday, and Friday at 10:30 A.M. in the NVIDIA Auditorium in Huang. Unfortunately, the lecture room is too small to fit the number of students, and there are no overflow rooms available except for the space immediately outside the lecture hall. The lectures, however, are recorded and will be available online. The schedule for individual lectures is given on the accompanying calendar handout.

Discussion sections

In addition to lecture, you must also sign up for a weekly 50-minute section. In order to take CS 106A, you must sign up for a section between 5:00 P.M. on Thursday, January 7, and 5:00 P.M. on Sunday, January 10. The signup form is available on the web at the URL <http://cs198.stanford.edu/section/>. After a matching process, your section assignments will be sent to you by email by Tuesday, January 12. Sections begin the second week of classes. **Important note:** Do not use Axxess to sign up for sections; section enrollments made through Axxess are simply ignored.

Some of the programming assignments in this class will be done individually; for others, you will have the option to work in pairs. If you do decide to work in a pair for those assignments, you may only pair with someone in the same section as you. There is a place on the web form through which you can request to be assigned together with a partner, but you and your partner must list exactly the same set of preferences.

If you need to change your section after the assignments are made, please contact head TA Alisha Adam.

Section leaders and course helpers

CS 106A provides extensive assistance for students. Section leaders and course helpers are available from Sunday through Thursday evenings each week in Old Union to help with assignments. Helper hours begin in the second week of the quarter. Check the web

site <http://cs198.stanford.edu/> and click on the “Helper Schedule” link for the latest schedule of helper hours.

Units

If you are an undergraduate, you are required to take CS 106A for 5 units of credit. If you are a graduate student, you may enroll in CS 106A for 3 units if it is necessary for you to reduce your units for administrative reasons. Taking the course for reduced units does not imply any change in the course requirements.

Drop/add deadlines

You may not add or drop courses from your study list after 5:00 P.M. on Friday, January 22, without having that course appear on your transcript with a notation indicating that you have withdrawn from the course. The last day to change your status to CR/NC or to withdraw from the course is Friday, February 26.

Web page

The web page for CS 106A is <http://cs106a.stanford.edu/>. All the materials and course announcements will be posted on this web site, so be sure to check it frequently.

Course materials

There are two required texts for this class, both of which are available from the Stanford Bookstore. The first is *Karel the Robot Learns Java*—a 35-page tutorial that introduces the major concepts in programming in the context of an extremely simple robot world. The second is the textbook, *The Art and Science of Java* (Addison-Wesley, 2008). In addition to these texts, we will also distribute additional material in the form of class handouts. After class, any extra copies of the handouts will be placed in the “Handout Hangout” bins in the entryway to the Gates B-wing between Gates 182 and 188. The handouts are also available in PDF® format on the CS 106 web site. If you miss a handout in class, you can print your own copy from the web.

Assignments for this class must be implemented using the programming environment called Eclipse, which runs under both Mac OS X and the various flavors of Microsoft Windows. Instructions for obtaining copies of the Eclipse environment—which is an open-source software project and therefore free—will be distributed on Wednesday.

Examinations

The midterm examination will be administered at two different times on Tuesday, February 9: from 9:00 to 11:00 A.M. and from 3:00 to 5:00 P.M. In accordance with university regulations, the final examination will be offered only during the slot reserved for the introductory computer science courses, which is on Monday, March 14, from 8:30–11:30 A.M. The examinations themselves are written so that you should be able to complete them in less than the fully allotted time: the midterm is designed to take one hour and the final is designed to take 100 minutes. All examinations are open-book, and you may use any notes or materials from the class.

Programming assignments and problem sets

This quarter, CS 106A requires six programming assignments, which are due on the dates given in the calendar handout. Except for Assignment #6 (which is due at the very end of the quarter), each assignment is graded during an interactive, one-on-one session with your section leader, who also assigns two grades—one for functionality and one for programming style—chosen according to the following scale:

- ++ An absolutely fantastic submission of the sort that will only come along a few times during the quarter. To ensure that this score is given only rarely, any grade of ++ must be approved by the instructor and TA. Since your section leader would almost certainly want to show off any assignment worthy of a ++, this review process should not be too cumbersome.
- + A submission that exceeds our standard expectation for the assignment. The program must reflect additional work beyond the requirements or get the job done in a particularly elegant way.
- ✓+ A submission that satisfies all the requirements for the assignment—a job well done.
- ✓ A submission that meets the requirements for the assignment, possibly with a few small problems.
- ✓– A submission that has problems serious enough to fall short of the requirements for the assignment.
- A submission that has extremely serious problems, but nonetheless shows some effort and understanding.
- – A submission that shows little effort and does not represent passing work.

From past experience, we expect most grades to be ✓+ and ✓. Dividing the grades into categories means that your section leader can spend more time talking about what you need to learn from the assignment and not have to worry about justifying each point.

For each assignment, you must make an appointment with your section leader for an interactive-grading session. Your section leader will explain in section how to schedule these sessions and go over the grading process in more detail.

Late policy

Assignments are submitted electronically as described in the first assignment handout. **Important note: all assignments are due at 5:00 P.M. on the date indicated on the assignment handout. Assignments submitted after 5:00 will be considered late.**

Because each of you will probably come upon some time during the quarter where so much work piles up that you need a little extra time, every student begins the quarter with two free “late days.” To avoid any ambiguity, a “day” is defined as a class day. Thus, if your assignment was due on Friday but turned in the following Monday, that assignment would be one day late. After your late days for the quarter are exhausted, programs are assessed a late penalty of one category point per late day used (a ✓+ turns into a ✓, and so forth). Late days are valuable, and it pays to keep some around for the harder assignments toward the end of the quarter. In all cases, assignments must be turned in within a calendar week of their published due date.

In special circumstances such as extended medical problems or other emergencies, extensions may be granted beyond the late days. To request an extension, send email to aadam@stanford.edu no later than 24 hours before the program is due. Only Alisha is authorized to approve such extensions. In particular, do not ask your section leader.

Contests

As shown on the calendar handout, there are three contests scheduled at different points during the term. The point of these contests is to give you a chance to show creativity and initiative beyond what is formally required by the course. Rules for each contest will be distributed in class when they are announced.

To encourage greater participation in the contests, we will offer two additional incentives. First, every reasonably serious entry gets you one virtual ticket in a random drawing for a special grand prize at the end of the quarter. The more contests you enter, the more chances you have. Winning runner-up prizes or honorable mentions in a contest or submitting assignments nominated for ++ scores give you additional chances. The random drawing will take place at the beginning of the review section for the final exam.

As a second incentive, we're going to borrow a page from Harry Potter and award "house points" for extra-credit activities according to your year of entry. If you're a first-year student, for example, entering a contest not only gives you a virtual ticket in the end-of-the-quarter contest, but also gives the first-year class one point in the standings. The class with the most points in proportion to the number of students from that class will win bragging rights at the end of the term. The current standings will be displayed on the course web page. Graduate students and others who have managed to be around more than four years will be counted with the seniors.

Grading

The most important component of the final grade in CS 106A is always the programming assignments, which typically count for approximately half the final grade. Even so, one of the complaints we regularly hear from students is that the assignments don't count for enough relative to the exams. Many students feel that as long as they can implement the assignments correctly, it shouldn't be necessary to suffer through an examination taken under arbitrary time constraints without the aid of a computer.

Although I'm sympathetic with this argument in theory, there is a problem. Computer science courses—here at Stanford as well as at most other institutions—have been marked by an intolerably high number of Honor Code cases. Given that reality, we use exams as a check to ensure that students have learned the material. Someone who copies their assignments from someone else may do very well on those assignments (assuming we don't catch it), but will in all probability do poorly on the midterm and the final.

Here, then, are the weights for the different components of the course:

Programming assignments	55%
Final examination	25%
Midterm examination	15%
Section participation	5%