Colin Kincaid
CS 106A
Handout #1
June 25, 2018

CS 106A — General Information

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Head TA: Annie Hu
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Lectures: Monday through Thursday, 11:30AM – 12:20PM in NVIDIA Auditorium

Course Overview

CS 106A is a first course in computer programming and software development. You will learn techniques, programming constructs and design strategies that form the basis for modern software. When you complete the course, you will be comfortable writing programs that interact with the user, process and manipulate data, and report information to the user textually and graphically. More importantly, you will learn how to approach problem solving from a computational perspective, gain exposure to different areas in computer science, and see how programming is applicable across many domains.

Units

If you are a matriculated Stanford graduate student, you may enroll in CS 106A for 3-5 units based on your schedule. Otherwise, you are required to enroll in CS 106A for 5 units. Taking the course for reduced units does not alter the course requirements.

Class Website

The website for CS 106A is located at **https://cs106a.stanford.edu**.
Please check the course website regularly as we will post important announcements there, as well as the course schedule, lecture materials, handouts, assignments, etc.

Email

A Stanford email account is required for important communication from the course staff. Information on obtaining one is available at **https://email.stanford.edu**. Please note that your assigned section leader is your primary point of contact for the course; please only email the instructor or Head TA for topics such as extensions (discussed later), OAE accommodations (discussed later), etc.

Textbooks

1) Roberts, Eric. *Karel the Robot Learns Java* (coursereader).
2) Roberts, Eric. *The Art and Science of Java*. ISBN 978-0321486127

Both are available from the Stanford Bookstore, as well as other retailers. You can also find an online PDF copy of the coursereader on the course website. Assigned readings will be from these textbooks, which also contain references for all topics covered in the class, as well as practice problems. Note that exams will be **closed-book** this quarter, so it is fine to only own digital copies of the textbooks. See the *Exams* section for more information.

Grading

Final grades for the course will be determined using the following weights:

45% Programming assignments (weighted toward later assignments)
10% Section participation and lecture feedback
15% Midterm examination (7/23 7-9PM)
30% Final examination (8/17 12:15-3:15PM)

Programming Assignments

There will be six programming assignments throughout the quarter. Assignments are due at **11AM sharp** on the dates specified on the course website, and are written electronically via the **Eclipse** open-source program. Eclipse is free and compatible with macOS and Windows. Eclipse installation instructions are on the course website. All cluster machines on campus also have Eclipse pre-installed.

Later assignments become slightly more difficult and will be weighed slightly more than the earlier ones. Your section leader grades each assignment on *functionality* (is the program's behavior correct?) and *style* (is the code well-written and elegant?). Rather than grading on a direct point-based scoring system, we map homework scores to the following scale; from past experience, most grades will be ✓ or ✓+.

++ An absolutely fantastic submission that will only come along a few times during the quarter. Any grade of ++ must be approved by the instructor and Head TA.

\+ Exceeds our standard expectations for the assignment; often reflects additional work beyond the requirements or solves the problem in a particularly elegant way.

✓+ Satisfies all the requirements for the assignment, showing solid functionality as well as good style. It reflects a job well done.

✓ Meets the requirements for the assignment, with a few small problems.

✓– Has problems serious enough to fall short of the requirements for the assignment.

– Has extremely serious problems, but nonetheless shows some effort and understanding.

– – Shows little effort and does not represent passing work.

Using these categories means that your section leader can focus on the assignment's learning goals rather than spending time justifying each point. Our goal is to maximize the learning experience in doing the assignments, and we have found the "bucket" grading system to work much better for programming assignments than assigning numeric grades from a pedagogical perspective over many quarters of experience.

Disputes about homework grading must be submitted to the Head TA within 1 week of receiving your grade.

LaIR Helper Hours

CS 106A provides extensive assistance for students. Starting on Wednesday, June 27, section leaders will be available Sunday through Wednesday from 7-11PM each week in Tresidder Union (first floor, in the food court area) to help with assignments or review course material. Sign up at the computer in the back and we will help you as soon as possible.

Working in Pairs

The first two assignments in this course must be completed individually, but the majority of them allow you to *optionally* work in a pair with a partner. Each assignment will specify if it is to be done individually or allows working in pairs. Note that you are not required to work with a partner on assignments that allow it, but you are encouraged to do so. Working in pairs can improve student learning by giving you someone to talk to when you are stuck, or by letting you see a different way of approaching the same problem. You can also change pairings between assignments. In other words, you don't have to keep the same pairing for every assignment that allows pairs, and can choose to do some in pairs and others individually.

If you choose to work with a partner, you must pair with another student who is currently enrolled in the course for the same grading basis and is in your section. That is, a student taking the course Credit / No Credit may not pair with one taking it for a letter grade. If you have a friend you want to work with, request the same section or request a section swap if necessary. Students auditing or sitting in on the course do not submit assignments and therefore may not work in a pair with a student who is taking the course.

If you submit an assignment as a pair, each of you is expected to make a **significant contribution** toward solving that assignment. You should not claim to be part of a pair submission if you did not contribute significantly to help solve that program. **If you submit an assignment as a pair, you should make ONE submission and make sure that the names of both members of the pair are listed in the comments of the solution.** Both members will receive the same grade.

Regardless of pairs, every student is still responsible for learning all course material. In particular, all exams are completed individually. More details about working in pairs is available on the class website; please make sure that you follow all listed guidelines.

Late Policy

Every student begins the quarter with **three free "late days."** Each late day allows you to submit a program up to 24 hours late without penalty. For example, if a program is due on Wednesday at 11AM, using 1 late day allows you to submit it until Thursday at 11AM without penalty, and using 2 late days allows you to submit it until Friday at 11AM without

penalty. **We will not accept assignments more than 48 hours late, and will not accept late submissions for the last assignment (#6)**.

After the late days are exhausted, programs that come in late will be assessed a late penalty of one grade "bucket" per day for functionality and style (e.g., a ✓+ turns into a ✓).

If you are working in a pair and turn in an assignment late, both members of the pair will be individually assessed "late days". For example, if you turn in your assignment as a pair one day late, then each member of the pair incurs one "late day." If you are out of free "late days" but your partner isn't, then your assignment grade is penalized one grade "bucket", but your partner would simply use one free late day (and thus not be penalized one grade "bucket"). Note: you cannot transfer free late days to your partner.

You should think of free late days as extensions you have been granted ahead of time, and use them when you might have otherwise tried to ask for an extension. As a result, getting an extension beyond the provided free late days will generally not be granted. In *very special* circumstances (primarily extended medical problems or other emergencies), extensions may be granted beyond the free late days, but this is very rare. **Only the Head TA will be able to approve extensions.** In particular, do not ask your section leader. All extension requests must be received no later than 24 hours before the due date.

Discussion Sections

In addition to lecture, you must also sign up for a weekly 50-minute section. Your section will be run by the same section leader who will grade your work. In section, we answer questions, go over common errors in homework solutions, and go over practice problems in more detail than we can in lecture. Part of your course grade comes from attending and participating in your section on a regular basis.

You must sign up for a section using the link in the "Section" dropdown on the course website **between 5PM on Sunday, June 24, 2018 and 5PM on Tuesday, June 26, 2018.** Note that signups are **not** done on a first-come, first-served basis. After a matching process, your section assignments will be e-mailed out to you no later than 9AM on Wednesday, June 27. Sections begin **the first week of classes**. Note that you **must** sign up for sections via the course website (you do not sign-up for sections on Axess).

Lecture Feedback

Each student will be assigned to give feedback on two lectures throughout the quarter. In order to receive credit for giving feedback, you must submit your comments **by 11AM on the Monday following each lecture**. Please see the "Lecture Assignments" document under the "Lecture" dropdown on the website for more instructions on giving feedback.

Examinations

The midterm examination will be administered **outside of class from 7-9PM on Monday, July 23**. If you have an academic or University conflict with this time and absolutely cannot

make the regularly scheduled midterm, you must **fill out the Head TA's exam form by 5PM on Monday, July 9** to arrange an alternate exam time. Please include in your email all the possible times you are able to take the exam from Sunday, July 22 to Tuesday, July 24. Any alternate midterm exam must be within this window.

The final examination is scheduled for **Friday, August 17th from 12:15-3:15PM**. For a variety of reasons (including university policy), **there will be no alternate time for the final exam**. Please make sure that you can attend the final exam at the specified time before enrolling in the class.

All examinations are **closed-book**, **closed-notes**, and **closed-electronic-device**. However, on each exam, you will be allowed to bring two double-sided "cheat sheets": handwritten or typed notes that you think will be helpful during the exam. A syntax reference sheet of common commands will be provided to you during each exam, as well as beforehand for studying.

Office of Accessible Education

Students who need an academic accommodation based on the impact of a disability must contact the Office of Accessible Education (OAE) which will evaluate the request, recommend reasonable accommodations, and prepare an accommodations letter which you should then send to the Head TA. We will do our best to provide any accommodations recommended by the OAE. Students interested should contact the OAE as soon as possible since advance notice is needed to coordinate accommodations.

The Honor Code

Academic conduct for students at Stanford is governed by the Honor Code. Part of the Honor Code is a pledge and expectation to participate in class without seeking inappropriate help on graded work such as assignments and exams. Please read the **separate Honor Code handout** posted on the course website. You are responsible for following the Honor Code in this course.

Ongoing Improvements

As part of our ongoing efforts to make this course an even better experience for students, our teaching team continually conducts research to improve our teaching methods. In this course, new teaching methods may be used and various aspects of student performance may be analyzed on an ongoing basis. Information about you and your personal performance in this course will be held strictly confidential, but aggregate information for the whole class may be reported. If you would like to opt out of participating in any new teaching methods or having your performance analyzed as part of this research, you may do so without penalty. For more information, please contact the instructor.