CS56, Winter 2016, Syllabus

Archived PDF: http://www.cs.ucsb.edu/~pconrad/cs56/16W/pdf/cs56_W16_syllabus.pdf

Basic Facts

Instructor	Phill Conrad	**Lecture**	MW 9:30am-10:45pm Phelps 3515 ATTENDANCE REQUIRED.
TAs	Chris Hall <chall01@cs.ucsb.edu>, Lennon Grinta <grinta@cs.ucsb.edu>	**Lab** (discussion section)	Thursday 4-4:50pm, 5-5:50pm, 6-6:50pm Phelps 3525 ATTENDANCE REQUIRED. Office Hours: See: http://www.cs.ucsb.edu/~pconrad/ofchrs
Web Site	http://www.cs.ucsb.edu/~pconrad/cs56	**Wiki**	https://foo.cs.ucsb.edu/56wiki

About the Course

- Our goal is to learn Java---but not just to learn Java for the sake of learning Java. After all, some of you already "know Java", at some level.
- Our bigger goals are:
  - to practice using big APIs to get stuff done--a very relevant real world job skill!
  - to learn how to learn a new language or technology--something you'll do a lot in your career
  - to learn about a few specific topics: the JVM, threads, Swing GUIs, etc..
  - to learn some professional-level, real-world programming practices.

The way I'm planning to teach the course is a bit different from what you may have experienced before--I'm trying to create a learning environment that *mirrors how real world software is developed* more than is the case is traditionally structured courses.

So, the emphasis will be on:

- open source, and sharing code, not keeping code secret
- collaboration
- writing code, that, where possible is actually useful and usable.

Note that "sharing code" doesn't mean "stealing code". We still don't take credit for other people's work---academic honesty still applies. It just 'looks different' in this course.

The official course description is here:

> CMPSC 56. Advanced Applications Programming
> (4) STAFF
> Prerequisite: Computer Science 24 and 32 with a grade of C or better
>
> Advanced application programming using a high-level, virtual-machine-based language. Topics include generic programming, exception handling, programming language implementation; automatic memory management, and application development, management, and maintenance tools; event handling, concurrency and threading, and advanced library use.

Final Course Grades

The formula to determine your course grade average is explained in the table below.

Regardless of any other policies spelled out here, the average used to determine your final letter grade may be no higher than one full letter grade higher than your exam average.

Thus,

- reasonably good performance on exams is very important to earning a good final grade in the course.
- an A or B should not be out of reach for anyone that has a reasonably good mastery of course concepts (enough to earn a B or C on the exams), and puts in hard work on the labs and project points.

To convert final averages to letter grades, the following scale will be used. NOTE THAT THIS IS NOT A STANDARD 10 POINT SCALE. The CS department has raised a concern about so-called "grade inflation". This course is one where there is a perception that grades are "too high". So, may have to work harder to earn an A or a B (or any letter grade for that matter.) Accordingly, there is no "rounding up". The grade scale will be enforced strictly—the square brackets [] and parenthesis () are interpreted as per standard math notation for intervals:

[97,100]	A		[82,84)	C
[94,97)	A-		[80,81)	C-
[92,93)	B+		[78,79)	D+
[89,91)	B		[76,77)	D
[87,88)	B-		[75,76)	D-
[85,86)	C+		[0,74)	F

$$(a,b) =]a,b[= \{x \in \mathbb{R} \mid a < x < b\},$$
$$[a,b) = [a,b[= \{x \in \mathbb{R} \mid a \leq x < b\},$$
$$(a,b] =]a,b] = \{x \in \mathbb{R} \mid a < x \leq b\},$$
$$[a,b] = [a,b] = \{x \in \mathbb{R} \mid a \leq x \leq b\}.$$

Source: https://en.wikipedia.org/wiki/Interval_(mathematics

A+ grades: These may be awarded to the very best performing students in the class—but the cutoff for A+ grades will be determined at the end of the course at the discretion of the instructor (there is no pre-determined cutoff---an average of 97 or more doesn't guarantee you an A+ grade.)

Grade Item	Percentage of Final Grade
Midterm 1	20 %
Midterm 2	20 %
Final	20 %
Labs (typically closed source, some open source), Hwks, In Class Assignments	15 %
Code Reviews	10 %
Projects (open source)	15 %

More On Grading

Grading: we'llhave three exams--two midterms and a final. That part of the course will be traditional. And, there will be some traditional lab and homework assignments (and perhaps quizzes) where "everybody in the class does roughly the same thing"---those make up another 15% of your grade.

There will also be at least two (perhaps more) rounds of "peer code reviews"---an industry-standard formal process of reviewing your code, and the code of three other individuals or pairs. You'll be graded on the quality of your participation in this process. This quarter, we plan to use an online process to faciliate these code reviews rather than face-to-face meetings.

The remaining part of your grade--the last 15%--comes from project points which are explained in more detail later in this syllabus.

Project Points

Project points assignments can be found in public github repositories in the Organization: http://github.com/organizations/UCSB-CS56-Projects. The way in which these will be assigned will be explained later in the course.

To earn a "perfect score" (100%) for this 20% component of your grade, you need to earn 1000 project points. If you only earn 800, then an 80% will be recorded for that 20% of your grade.

Some projects are worth more points, and some worth fewer.

If you accumulate more than 1000 project points, up to 250 project points may be used to raise your final average in the class up to 2.5 points. (The points will be recorded as extra credit). (Each point raises your final course average by 0.01%).

You may not earn more than 1250 total project points--any points in excess of 1250 will not count towards your grade (though you'll probably learn a lot from having under taken the work to earn them.)

Project Point Deadlines

- You may earn up to 1250 project points over the course of the quarter
- There are two deadlines for project points by which you should have earned at least 300, or 600 project points. The final deadline for project points is the last day of instruction at 5pm.

How to interpret these "due dates":

- Unless told otherwise in the instructions for a particular project points assignment, you may complete any project point assignment at any time.
- However, the points have to be "recorded" somewhere to count towards your grade.
- Before the first deadline , you have the possibility to earn up to 1250 project points.
- After the first deadline, if you haven't yet completed/submitted any project points work, the maximum number you can earn is now 1050 (1250-300).
- After the second deadline, if you haven't yet completed/submitted any project points work, the maximum number you can earn is now 1050-300= 750.
- You may "work ahead"---that is, if you earn 500 points for your first assignment, we'll count 300 towards Project Points 1, and the remaining 200 towards Project Points 2.
- However, once a deadline has passed, only project points earned before that deadline may be applied to that assignment.

Attendance

This course moves quickly. So attendance is very important.

We'll be trying to master the material from about 14 chapters in the book, at about 2 chapters per week. We need to go at that pace, because we'll lose a couple of weeks to exams, and the last few lectures the quarter, you can't really start anything new, because there isn't time to put it into practice with programming assignments. If you don't put it into practice, you aren't very likely to learn it in any way that is going to stick with you, so there isn't much point in just "going through the motions".

As a result, there will be something you have to turn in at almost every class. In this way, attendance is taken, and required.

These things you have to turn in will be a combination of in-class activities, and homework completed outside of class, but handed in on paper during class.

Quizzes may occur at anytime, announced or unannounced. Missed quizzes may not be made up, except per the "personal day/sick day" below—if you miss a quiz for any reason, and have already used your personal day/sick day, you will have to make up the points with extra credit.

Thus attendance is required, and reading the assigned readings is required.

Missing homework/in-class activities: Drop the lowest 5

If you miss a class, you miss the opportunity for the points on that in-class assignment, or homework that was due. Period.

There is no makeup. In lieu of providing a makeup opportunity, I will drop the lowest 5 homework/in-class-assignment grades (which may be zeros if you miss an assignment.) Each homework and in-class-activity will be of equal value (50 pts).

Notes sheets on exams

- You are permitted one 8.5 x 11 (standard US letter size paper) sheet of notes for each exam.
- You are permitted only one sheet per exam.
- Your notes sheet will be collected and WILL NOT BE RETURNED
- So, if you need a copy of it, make a copy BEFORE you come to the exam.

Questions about grades

Summary: regrade requests must be made only on GradeScope, and always within one week.

From time to time, the people who grade your papers may make clerical errors in grading (e.g. adding up points wrong or applying a rubric incorrectly.) For this reason, you are encouraged to review your grades as they are posted to Gradescope and Gauchospace. You will typically get an email as soon as each grade is posted. From the time the grade is posted, you will have one calendar week to post regrade requests. These must be made ONLY through Gradescope, ON the correct problem. (Don't request a regrade for question 4 on the page for question 7.)

Please note that **regrade requests based on clerical errors or applying a rubric incorrectly are always welcome**. Over the course of the quarter, we'll grade over 10,000 individual problems, so it is unlikely that we won't make at least some mistakes.

More problematic are challenges to the rubric itself, e.g. "I don't think you should have taken off so many points for that error" or "I think I deserve more partial credit for that incorrect answer". The instructor and TA will always listen, but please know that we've put a great deal of thought, time and experience into determining the rubric, and we've done our best to apply it to all students equitably. You may have a different point of view, we will not always agree with your assessment—in fact, we seldom will. **As such, regrade requests on this basis are not encouraged.** It is important to approach such conversations in a respectful manner, accepting that the instructor, TA and grader have been given responsibility for determining course standards, and applying those in a fair way to all students.

In any case, once the two week deadline for challenges has passed, each grade becomes final---and it is your responsibility to come to scheduled TA or instructor office hours to have this discussion. If you cannot make office hours, you may request an appointment, but you must request the appointment within ONE WEEK of the assignment being posted. If you wait until the last office hours opportunity during the two week window, and you are not able to be seen (e.g. because of a long line of students), then you lose the right to appeal your grade.

Late Labs

The policy is simple, and is based on the idea that the primary purpose of the deadlines is to allow the TA manage his/her workload. The number of labs in this course requires that he/she not have to do "context switching" between grading different labs. All labs must be graded in one sitting, or he/she just won't be able to keep up with the workload.

So:

- If you want your work to be graded without penalty, turn it in on time.
- If you turn in your lab late, you RISK GETTING A ZERO.
- We will grade late labs ONLY if it creates no extra inconvenience for the graders, and we WILL impose a penalty between 10-20% (see the individual grading rubrics for the labs.)
- There is NO GUARANTEE that late labs will be graded at all. The TA will simply start work at some point after the deadline, and grade until he/she is finished. At that time, he/she will "close the books" on that particular lab, and any work not submitted at that time will NOT be considered.

Accommodations for disabilities

Information about how UCSB supports students with disabilities is available at the campus ADA website: http://www.ada.ucsb.edu. If you require any special accommodations due to disabilities, please let me know as soon as possible. You may contact me by email to request an appointment: .

Standard Disclaimer

This syllabus is as accurate as possible, but is subject to change at the instructor's discretion, within the bounds of UC policy.

(end of syllabus)