

Grading

- Take-home Midterm – 30%;
- Take-home Final – 30%.
- Problem Sets/Strategy Designs – 40%.

Homework
Logistics

- Assignments will be due on Mondays at 11:59pm, and assigned at least one week prior to the due date. There will be five PSets, five “Strategy Designs”, and one warmup PSet.
- Handwritten solutions will not be accepted. You may use the provided LaTeX templates, or any other template/online LaTeX editor. Assignments must be submitted to codePost.
- Some assignments will feature extra credit. Extra credit will not add to the assignment score, but will contribute heavily to “participation.” Extra credit submissions which are clear but incomplete will generally get partial marks. Extra credit submissions which are unclear or difficult to evaluate may not always receive partial marks. Some extra credits are very challenging, and can be useful to gauge whether you want to pursue an IW in this area.
- You should make best efforts to anonymize your submission (e.g. do not put your name in the document body or title). But there are no repercussions if you forget.

Collaboration
Policy

- You should not consult collaborators or references *while writing* your solutions.
- Unless otherwise specified, you **may** collaborate with any number of other students in the class, or consult any outside references to *develop* your solutions. You may brainstorm, write on a whiteboard, and even completely solve the problem with others. You may even learn a complete solution during office hours with the course staff. **But you should write up your own solutions without collaboration.**
- Exceptions to the policy above: If somehow you wind up with solutions written by me or the course staff, you may not consult this source. Outside of official channels like office hours or Ed, you should not get help from someone who is not currently enrolled in the class.
- You should feel free to ask any clarifying questions regarding the collaboration policy.
- You should list all collaborators and external references used in your collaboration statement.
- A portion of each homework assignment may be designated as a *no-collaboration* portion, in which case you **may not** collaborate with other students or consult outside references. You **may** still discuss the problem with course staff. The purpose of these problems are to give you experience solving an entire problem start-to-finish on your own before the exams.

Exams

Take-home exams have similar format to PSets, but **you may not collaborate or consult outside references.** You may ask clarifying questions, but we will *not* provide hints/tips/guidance. The course staff may appear a bit robotic while answering questions about exams, because we are making a serious effort to stick strictly to a “no hints” policy.

Appeals

Graders sometimes make mistakes. When this happens, you can submit an appeal through codePost. In order to keep course logistics manageable, appeals must be submitted through codePost by the posted deadline — codePost will not accept late appeals. Your appeal must clearly and concisely state a concrete mistake that you believe the grader made. For example:

- “Grader said I didn’t say X, but I did say X.”
- “Grader feedback says only ‘good job!’, but they checked 15/20 on the rubric.”
- “Grader was *extremely* subjectively harsh — multiple points were taken off for a typo.”
- Asking for another set of eyes, or a vague complaint, will generally not succeed. A successful appeal should point to a concrete discrepancy between the rubric and the grader’s evaluation.
- To be extra clear: if an appeal does not clearly highlight a concrete mistake or confusion by the grader, it will typically be returned without being considered.

Ceilings and Floors

- In order to discourage students from stressing about getting every last minor detail perfect, all PSet scores will be capped at $\approx 95\%$ of the maximum total points. For example, if PSet 1 has 100 total points, and you score 97, your score will be 95/95.
- In order to discourage students from stressing about writing something frantic for problems they are truly stuck on, all *problem* scores will be floored at 10 – 15% of the maximum points. For example, if PSet 1 Problem 1 has 20 total points and you write “I don’t know.”, you will get 2/20 for Problem 1. You are encouraged to write “I don’t know”, but you will earn these points if you leave the problem blank, or write something that does not earn more points. If you have *concrete* partial progress, you are encourage to write it for partial credit.

Late Policy

No late midterms or finals will be accepted. For PSets, you may use up to 4 late days throughout the semester, and these are intended to cover events such as unexpected illness, out-of-town events, etc. (but you are free to use them for any reason without justification). **You may use only up to 2 late days on a single assignment**, and only an integer number of late days. **Outside of this policy, late submissions will incur a substantial penalty**, and I generally intend to stick to this policy verbatim.^a You may not use late days on Strategy Designs (due to the logistics of managing team submissions and running the entire class’s code at once).

^aUnder *truly exceptional circumstances*, you should email me and we will make accommodations.

Participation

Your tentative final grade is computed based only on exams, PSets, and Strategy Designs. However, the course staff understands that sometimes this numerical grade is not perfectly representative of your performance, and your final grade will also consider “participation” to a small extent. There is no such thing as “negative participation” which can hurt your grade — participation can only help (by giving you a small bump to your final grade). There is no formula for participation bumps. To be clear, **I do not suggest “participating” solely for the sake of improving your grade** (if you only care about your grade, there are significantly more time-efficient ways to get a higher grade). That being said, I do think you will get more out of the course if you choose to “participate”. Below is a non-exhaustive list of what is considered participation.

- Solving extra credit problems.
- Performing “above and beyond” on the open-ended Strategy Design Assignments.
- Participating in lecture in a manner which benefits your classmates (i.e. by answering questions, or asking insightful questions).
- Participating in precept in a manner which benefits your classmates.
- Participating on [course discussion forum] in a manner which benefits your classmates.
- Participating in office hours in a manner which benefits your classmates.

For contrast, here are some non-examples of participation:

- Attending lecture (please attend lecture anyway!).
- Attending precept (please attend precept insofar as you find it valuable).
- Attending office hours (please attend office hours insofar as you find them valuable).
- Being kind to the course staff (please be kind to the course staff anyway!).
- Optimizing statistics displayed to instructors on [course discussion forum].

Final Letter Grades

Below is as much detail as we are comfortable and able to share about how final letter grades are computed, as a function of your final numeric grade. We will post a link on Ed to a spreadsheet that will allow you to enter your grades on each assignment, and compute your final numeric grade (according to the policy outlined above).^a

- Grades in this class are **not curved**, in the sense that your own numeric grades and final letter grades **do not depend on those of your classmates**.
- Individual assignments are not curved/rescaled/etc. Your final numeric grade is calculated as $.4 \cdot \text{PSetGrade} + .3 \cdot \text{MidtermGrade} + .3 \cdot \text{FinalExamGrade}$.
- The “cutoff” for a C- or better is 50%. This is a one-sided promise that you will definitely get a C- or better (which displays as a P for P/D/F) if your final numeric grade is at least 50% (it is not a two-sided promise that you won’t get a C- or better if you’re below 50%).
- We are not comfortable sharing precise (or approximate) “cutoffs” for each letter grade. We do not have preset precise cutoffs, as they may change slightly due to circumstances that arise during the semester. However, ballpark cutoffs stay similar from year-to-year, and we are comfortable comparing them to “typical US high school cutoffs” (e.g. A+:97-100, A:93-96.9, A-:90-93, B+:87-89.9, B:83-86.9, B-:80-82.9, C+:77-79.9, C:73-76.9, C-:70-72.9). The bullets below describe comparisons to these.
- The 445 cutoff for an A+ is *much higher* than the typical US high school cutoff. Specifically, you cannot earn an A+ just by getting perfect grades (or even $> 100\%$, if for some reason that becomes possible). It is possible to get an A+ in 445, but we very (very, very) strongly suggest not changing your behavior in the course just to be in the running for a potential A+.
- The 445 cutoff for an A is comparable to the typical US high school cutoff (but not identical).
- The 445 cutoff for an A- is slightly lower than the typical US high school cutoff.
- The gaps between consecutive 445 cutoffs spread out as grades get closer to C-. For example, the gap between B+ and B is larger than the gap between A- and B+, etc.
- We will not further clarify what the terms ‘comparable’ and ‘slightly’ mean (or “how quickly” the cutoffs spread out, etc.).

^aWe will have this spreadsheet prepared by spring break. In case we forget to upload by spring break, you can remind us.