Course Website

Course materials will be posted on the course website and Piazza:

https://www.cs.princeton.edu/∼singla/COS521.html
https://piazza.com/princeton/fall2020/cos521

Course Staff

Instructor	**Email**
Sahil Singla	singla@cs.princeton.edu

Teaching Assistants

Kritkorn Karntikoon	kritkorn@princeton.edu
Antonio Molina Lovett	amolina@princeton.edu
Barak Nehoran	bnehoran@princeton.edu

Lectures and Recording

Class	**Time**	**Place**
Lecture	T/Th 1:30 - 2:50pm	https://princeton.zoom.us/j/98150870334

The lectures **will be recorded** for offline viewing and the links made available on Piazza. Try to keep your video ON but audio OFF.

Office Hours

Time	**Staff**	**Zoom**
Tuesday 3:00 - 4:00pm	Sahil	https://princeton.zoom.us/my/singlasahil
Wednesday 10:00 am - 12:00 noon	Kritkorn	https://princeton.zoom.us/my/kritkorn
Thursday 3:00 - 4:00pm	Sahil	https://princeton.zoom.us/my/singlasahil
Thursday 5:00 - 7:00pm	Barak	https://princeton.zoom.us/my/bnehoran
Friday 1:00 - 3:00pm	Antonio	https://princeton.zoom.us/my/amolina1

Additional Reference materials

- "Randomized Algorithms" by Motwani and Raghavan;
- "Probability and Computing: Randomization and Probabilistic Techniques in Algorithms and Data Analysis" by Mitzenmacher and Upfal;
- "Probabilistic Method" by Alon and Spencer;
- "Approximation Algorithms" by Vijay Vazirani;
- "Design of Approximation Algorithms" by Williamson and Shmoys;
- "Twenty Lectures on Algorithmic Game Theory" by Roughgarden;
- "Spectral Graph Theory" by Chung;

Grading

There will be 5 PSets throughout the semester. In December, everyone must either complete a take-home final or do a term project (in groups of 2). Grades will be 60% PSets and 40% final (exam or project). More project details will be posted later.

CodePost

We will use CodePost for submission and grading of assignments. **Your grade on PSets will be determined by peer evaluation.** Use your princeton email to signup here.

- **Purpose:** Evaluating your peers' assignments has pedagogical value, especially to the *grader* (you will write better solutions if you have experience evaluating them), but also to the gradee.
- **Purpose:** PSets for this class are long/challenging and the class is large. This will give the (peer and TA) graders an opportunity to provide thorough feedback for some instead of rushed feedback for everyone.
- **How your grade will be determined:** Every submission will be graded by a peer or a TA.
- The final will be graded exclusively by TAs.

Homework Logistics

- Homeworks will be due on Fridays at 11:59pm, and assigned roughly two weeks before the due date. CodePost submission portal will start accepting assignments at least 5 days before the due date.
- Peer grading will begin on the Monday after the due date (this is after the two late days) and continue for 1 week. TAs will then grade any ungraded assignments and finalize grades.
- Handwritten solutions will not be accepted. You may use the provided LaTeX templates to type your solutions, 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. Generally, you should do extra credits because you enjoy the material, not because it will help your grade (although high success on the extra credits may improve your final grade). Your extra credits should be written very clearly in order to receive "full marks." 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 receive any partial marks.
- Regrade requests: if your assignment is graded (by peers or a TA) erroneously, and it has a significant impact on your grade, you may submit a regrade request which clearly identifies the error. Any requests must be made within seven days of the assignment being graded, or will not be considered. Please note, however, that grading for an advanced graduate class is not fine-grained or used to distinguish between high-performing students. Due to this, regrade requests for minor discrepancies may not be considered, even if justified.
- 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.
- There will be five homeworks.

Late Policy

For PSets, you may use up to 5 late days throughout the semester, and these are intended to cover events such as unexpected illness, an out-of-town event etc. (although you are free to use them for any reason you like without justification). You may use only up to 2 late days on a single assignment (i.e., till the following Sunday midnight), and only an integer number of late days. In order to accommodate sporadic events (such as conference deadlines or presentations) which may cause you to miss a significant portion of a homework, we will "forgive" up to 50% of one homework (e.g. if you miss a homework entirely, you will get 50% on that homework instead. If you can only do 20% of a homework during one cycle, you will get 70% instead). Outside of this policy, we will generally not accept late submissions. (If you have a true emergency that falls outside the guidelines of this policy, you should email me. But I will generally aim to stick to this policy.)