Course Website

Course materials will be posted on the course website:

`https://www.cs.princeton.edu/courses/archive/fall24/cos521/`

Course Staff

Instructors	**Office**	**Email**
Pravesh K. Kothari	*Computer Science 320*	`kothari@cs.princeton.edu`
Teaching Assistants		
Amrit Daswaney		`ad6919@cs.princeton.edu`
Siyang Wu		`sw2776@princeton.edu`

Lectures

Class	**Time**	**Place**
Lecture	M/W 1:30 - 2:50pm	Friend Center 006

Office Hours

Time	**Place**	**Staff**
M/W 3-4pm	CS320	Pravesh
Tue/Thu 12:30-1:30pm	CS 3rd Floor	Siyang
Thu 3-5pm	CS 3rd Floor	Amrit

The course staff maybe able to accommodate a request to meet outside of the above hours if the schedule permits and none of the above work. Please email to set such a slot up.

Additional Reference materials

- "Algorithmic Game Theory" by Nisan, Roughgarden, Tardos, and Vazirani;
- "Randomized Algorithms" by Motwani and Raghavan;
- "Online Computation and Online Analysis" by Borodin and El-Yaniv;
- "Probabilistic Method" by Alon and Spencer;
- "Approximation Algorithms" by Vijay Vazirani;
- "Design of Approximation Algorithms" by Williamson and Shmoys;
- "Spectral Graph Theory" by Chung;

Grading

There will be 4 homeworks throughout the semester. In the last ≈month of the course, everyone must either complete a take-home final or do a term project (in groups of 2 or 3). Grades will be 55% Homeworks, 40% final (exam or project) and 5% participation (in class and in peer grading). See `https://www.cs.princeton.edu/courses/archive/fall24/cos521/project-guidelines.pdf` for project guidelines (to be posted on or before Sep 13th).

Peer Grading

We will use Gradescope for submission and grading of assignments. You will grade each others' assignments. **Your grade on homeworks will be determined by peer evaluation.**

- **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:** Homeworks for this class can be 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. We will encourage graders to focus on providing thorough text feedback.
- **How your grade will be determined:** Every submission will be graded by someone. Some (randomly selected) assignments will be graded by a TA. You will have the opportunity to appeal grades, in case there is a major mistake.
- The final (exam and project) will be graded exclusively by TAs and instructors.

Homework Logistics

- Homeworks will be due on Sundays at 11:59pm, and assigned well before the due date.
- 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 Gradescope.
- Written solutions will not be released but the TAs will discuss HW solutions in an office hour after the submission deadline. Since a lot of learning in this course happens in HWs, we recommend you to attend these office hours (especially if you were unable to solve a problem but also to learn of alternate solutions, correct level of detail to describe your solution etc.).
- Some assignments will feature bonus problems. Generally, you should do bonus problems because you enjoy the material, not because it will help your grade (although high success on the bonus problems may improve your final grade). Bonus problems will often relate to more "cutting edge" research around the topic so it may also give you a glimpse of what algorithms research looks like.
  Your bonus problem solutions should be written very clearly in order to receive "full credit." Bonus problems will not add to your assignment score but may help your final grade. Solutions that are clear but incomplete will generally get partial credit. Solutions that are unclear or difficult to evaluate may not receive any partial credit.
- 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 (generally, this would involve stating the rubric that was incorrectly evaluated). Any requests must be made within ten 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 four homeworks.

Late Policy

For homeworks, you may use up to 4 late days throughout the semester, and these are intended to cover events such as unexpected illness, an out-of-town events, 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, 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.[a]

[a] If you have a true emergency that falls outside the guidelines of this policy, you should email us. But we will generally aim to stick to this policy.