

CS369. Topics in Algorithms

Tuesday 11am – 12:15pm, Gates 200.

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Overview: The main theme of the course this year is online algorithms. Topics will include algorithms for paging, load balancing, online congestion minimization, virtual circuit routing, online gradient descent, approximating metric spaces with tree metrics, and online decision problems.

Prerequisites: Participants should have working knowledge of basic algorithms and data structures, linear algebra, and elementary graph theory. Knowledge of basic linear programming concepts is highly desirable.

Requirements: Each lecture, one of the participants will take notes, and will submit a final version of these notes a week after the lecture. These notes will be distributed to all the participants. Each participant will be expected to take notes (or edit existing version of notes) at least once during the quarter. The grade will be determined by both the quality of the notes and the solutions to 2-3 homework assignments.