Welcome to CSE 417
Algorithms and Computational Complexity

Administrivia

- Anna Karlin
  - CSE 594, karlin@cs
  - Office hours, Thursday 9-10am and by appt.

- TAs
  - Wenbo Cui Office hour Wednesday, 4-5pm
  - Ziyao Huang Office hour Thurs 5:45-6:30pm
  - Seokmin Kim Office Hour Friday 1-2pm
  - Kuikui Liu Office hour Monday 4-5pm
  - Jingyi Yuan Office hour Tuesday 4-5pm

  - All TA office hours in CSE 218.
  - Office hours start next week.

What is this course about? (1)

- Design of algorithms
  - Design techniques
  - Common and important types of problems
  - Analysis of algorithms: efficiency
  - Correctness proofs

- Goal: expose you to a sampling of ideas, techniques, tools and applications.

What is this course about? (2)

- Complexity, NP-completeness and intractability
  - Solving problems in principle is not enough
    - Algorithms must be efficient
  - Some problems have no efficient solution
  - NP-complete problems
    - Important and useful class of problems whose solutions (seemingly) cannot be found efficiently, but can be checked easily.

Other

Course web page:
  - http://courses.cs.washington.edu/cse417
  - Office hours listed

Background expected
  - Intro algorithms and data structures (e.g., CSE 373)
  - “Mathematical maturity”

Workload

- 7-8 problem sets (55%)
  - Half paper and pencil, half programming.
  - Due Fridays: 4pm or midnight?
- Participation (5%)
- Final (40%)

- I might replace one or two problem sets with a quiz… to be determined…