

For the final

- Much like the midterm, but a bit longer.
 - ~25%: apply known algorithm
 - ~50%: give a proof/algorithm that is very similar to one we saw in class/assignments
 - ~25%: design a proof/algorithm not seen before
- **Strong** emphasis on 2nd half
 - 1st half only relevant where need for 2nd half
- **Not** covered:
 - $W[1]$ -hardness
 - APX-hardness of Max3SAT, PCP theorem
 - Taking integrals or derivatives

Some administrative stuff

- Office hours continue unchanged until Dec. 12
 - TB: Wed 10-11, JT: Fri 11-12, SK: Mon: 9:30-10:30
 - Extra hours TB: Fri (12/9), Mon (12/12), 10-11
- A5: Hopefully graded by Wed
 - returned in office hours
 - Watch web page for announcements
- Fall 2009 final: available on UWACE

Future courses to take

Name	Professors	Course number	Offered?
Advanced Data Structures / Amortized Analysis	I. Munro	CS 860	??
Computational Geometry	T. Chan, A. Lubiw, T. Biedl	CS 763	2012/13?
Graph-theoretic algorithms	A. Lubiw, T. Biedl	CS 762	2012/13?
Randomized algorithms	P. Ragde	CS 761 C&O 738	Rarely ??
Approximation algorithms	J. Cheriyan	C&O 754	Winter 2012
Computational Complexity	J. Buss	CS 764	??
Parametrized/Exact Algorithms	N. Nishimura	CS 860	Winter 2012
Online algorithms	A. Lopez-Ortiz	CS 860	??

What to remember **after** the final

- Worst-case bound bad, but doesn't happen often?
 - Try **amortized** analysis!
- Deterministic algorithm difficult or slow?
 - Try **randomized** algorithm!
- Problem is NP-hard?
 - Find an **approximate** solution!
- Can't find a PTAS?
 - Try proving **APX-hardness**!
- Must have the best solution?
 - Make algorithm **fixed-parameter tractable**!
- Everything is perfect?
 - Can you solve it in an **online**-setting?
- And if all else fails???
 - Consider **special cases** so you can publish something!