

CS182—Foundation of Computer Science  
(<http://www.cs.purdue.edu/homes/spa/cs182.html> )  
MWF 1:30 in *LWSN B155*

Professor: W. Szpankowski  
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### Texts:

K. Rosen *Discrete Mathematics and Its Applications*, McGraw-Hill Science/Engineering/Math;  
5 edition (April 22, 2003).

### Recommended:

- Efim Kinber and Carl Smith, *Theory of Computing: A Gentle Introduction*, Prentice Hall, 2001.

### Approximate Course Outline (see the CS182 web page for details):

- Basic Logic
- The Language of Mathematics
- Proof Techniques including Mathematical Induction
- Algorithms
- Basic Number Theory (and Number Representation)
- Basic Counting
- Discrete Probability
- Trees
- Boolean algebra and combinatorial circuits
- Finite state machines
- Pushdown automata
- Complexity classes, computability, and undecidability

### Course Work and Grading Policy

The course work consists of homeworks, quizzes, two midterms and the final. The final grade is based on **30%** homeworks and programming assignments, **10%** quizzes (no make-up but the worst score may be dropped), **30%** midterms (15% each midterm), and **30%** final.

No late assignments will be accepted. (**Homeworks will be collected by the end of the class on the due date.**) If you want to re-grade your homework, you must contact your TA within 10 days of receiving your homework/quizzes/midterm back. No re-grading after this time. No incomplete.