# CS182—Foundation of Computer Science

(`http://www.cs.purdue.edu/homes/spa/cs182.html` )

MWF 11:30–12:20 in *SC 239*


| | |
|---|---|
| Professor: | W. Szpankowski |
| E-mail: | `spa@cs.purdue.edu` (only in the case of an emergency) |
| Office: | LWSN 1201, 49-46703 |
| Office Hours: | WF 3:00–4:00 or by appointment |
| HEAD TA: | Mohamed Fouad |
| E-mail: | mrf@cs.purdue.edu |


## 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.