

**CS503**  
**Foundations of Computer Science**  
Fall 09

**INSTRUCTOR:** Stanley Selkow, Fuller-147, 508-831-5449  
email: "sms at wpi.edu"  
Office Hours: M, Tu, W. Th - 2:30 → 3:30

**TEXT:** Sudkamp, Languages and Machines: An Introduction to the Theory of Computer Science (3rd Edition) Addison Wesley, 2005

**GOALS OF COURSE:** The course covers the theoretical foundations of computer science. These form the basis for a more complete understanding of the limits of computation. Topics include computational models, formal languages, and an introduction to computability and complexity theory.

**EXPECTED BACKGROUND:** Knowledge of discrete mathematics and algorithms, and facility with reading and writing mathematical proofs.

**EVALUATION FOR GRADING:**

Homework - 50%

Assignments and programs are due 4:00 p.m. of the due date.

Since solutions will usually be posted when homework is collected, late homeworks will be graded, but these grades will be discounted. If you hand in late homework, do not look at posted solutions before doing the assignment.

Exams - 50%

The two **open-book, open-notes** exams will take place  
Thursday, October 22 and Thursday, December 17.

Any changes in the above schedule will be announced well in advance. There will be no surprise, quickie exams.

Discretion - ?%

The class will be interactive. Numerical final grades which fall on the border between letter grades will be influenced by classroom participation.

**GROUP MAILING:** Mail sent to "cs503-all at cs.wpi.edu" will be distributed to the entire class, including the professor. Membership in this list is important since class cancellations and other changes will be announced through this list. Instructions for joining or leaving this list may be found at

[www.cs.wpi.edu/Resources/majordomo.html](http://www.cs.wpi.edu/Resources/majordomo.html)

**WEB:** Course materials will be available from  
[www.cs.wpi.edu/~sms/cs503](http://www.cs.wpi.edu/~sms/cs503)

**CHEATING:** You are encouraged to work with other students. In fact, it is my experience that students who form study groups to discuss the material together generally perform better. However, your homeworks and exams are your responsibility **alone**. Once you begin writing up your homework, you should **not** discuss the homework with anybody else. WPI's academic policy can be found at

<http://www.wpi.edu/Pubs/Policies/Honesty/>