

Understanding and Constructing Proofs - CS 1050 B Spring 2003

Instructor: Edyta Szymańska

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Tentative Office hours: W 10-11am
and by appointment

Meeting: MWF 12:05-12:55pm, CoC 17

Textbook: *Discrete Mathematics and Its Applications* by Kenneth H. Rosen, Fifth Edition, Mc Graw-Hill, 2003

Assignments: Ten homework assignments will be graded. They will be **due in class**, normally on **Wednesdays**. You are asked first to try to solve each problem yourself. If you get stuck you are permitted to collaborate with other students enrolled in the course. List on the assignment everyone with whom you discussed the problems. You **MUST** write up your solution alone. You are welcome to use additional references besides the class text. Please however list such references on your assignment. To earn full credit for a problem all relevant work must be shown.

Tentative Important Dates:

1. Mid-term 1: Monday, February 10
2. Mid-term 2: Friday, March 21
3. Final exam: Thursday, May 1, 8:00-10:50 am

Grading: Homeworks: 20%, two Mid-terms: 40%, Final exam: 40%.

Course Outline

1. Logic. Sets and Functions. (Chapter 1)
2. The Fundamentals of Algorithms. (Chapter 2)
3. Mathematical Reasoning. Induction and Recursion. (Chapter 3)
4. Counting. The Pigeonhole Principle. (Chapter 4)
5. Discrete Probability. (Chapter 5)
6. Recurrence Relations. (Chapter 6)
7. Relations and Their Properties. (Chapter 7)
8. Graphs. (Chapter 8)
9. Trees. (Chapter 9)
10. Boolean Algebra. (Chapter 10)