Introduction to Discrete Structures
CIS 11/611X, Sections GJ and SWH
Fall 2002

Textbook: Kenneth H. Rosen (1998): *Discrete Mathematics and its Applications*, McGraw Hill, ISBN 0-07-289905-0 and *Students Solutions Guide*, McGraw Hill, ISBN 0-07-2336102.
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Office Hours: Monday 3:15 PM - 4:15 PM
Classes: Monday/Wednesday, 2:00 - 3:15 PM, 234 New Ingersoll Hall
Note: There will be no classes on September 16th and October 14th. However, classes will follow a Monday schedule on September 17th and October 16th.
Requirements: 2 in-class problem solving examinations and one final examination. Each examination will cover *all* the material previously covered. The best (and the only) way to prepare for the exams is to work through the solved examples and problems at the end of each section in the textbook. The *Student Solutions Guide* carries solutions to all the odd-numbered problems.
Examination Dates:
Examination #1 (30 % of final grade): October 2nd
Examination #2 (30 % of final grade): November 13th
The Final Examination (40 % of final grade) will be held at its scheduled time during Finals week.
There will be NO MAKE-UP examinations.

Lectures and Topics:

The following is a tentative sequence of lectures. We might deviate at times if required.
1: Logic: Propositions, Propositional Operators, Equivalences 1.1, 1.2
2: Boolean Algebra: Boolean Functions and their Representation 9.1, 9.2
3: Logic: Predicates and Quantifiers 1.3
4: Set Theory 1.4, 1.5
5: Functions 1.6
6: Probability Theory 4.4, 4.5
7: Methods of Proof and Induction 3.1, 3.2
8: Induction and Recursion 3.2, 1.7, 3.3
9: Examination #1
10: Algorithms 2.1, 2.2
11: Growth of Functions 1.8
12: Recursive Algorithms 3.4
13: Recurrence Relations 5.1, 5.2, 5.3
14: Relations 6.1, 6.2, 6.4, 6.5, 6.6
15: Relations and Graphs 6.3, 7.1
16: Examination #2
17: Graphs 7.1, 7.2, 7.3, 7.4, 7.5
18: Trees 8.1, 8.2, 8.3
19: Modeling Computation 10.1, 10.2, 10.3, 10.4