

Math 231, Discrete Mathematics I, Fall 2010

Class Time: MTuWF 12-12:50p.m. in 30 Pacific
Instructor: Dr. Marcin Bownik
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Office: 141 Campbell
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Office Hours: 11-12p.m. Monday and Friday, 1-2p.m. Wed., or by appointment
Textbook: *Discrete and Combinatorial Mathematics*,
by Ralph P. Grimaldi, 5th ed., Pearson

- 1. Background and Goals.** This course, which is the first of three in the sequence, introduces students to the subject of discrete mathematics. Topics include:
 - (a) fundamental principles of combinatorics,
 - (b) elementary logic (propositional calculus and quantifiers),
 - (c) basic set theory (set operations and Venn diagrams),
 - (d) introduction to discrete probability (axioms of probability, conditional probability, independence, and random variables),
 - (e) integer arithmetic (mathematical induction, recursive definitions, the Euclidean algorithm, prime number factorization).The course, which is the first in the sequence, covers most of the first four chapters of Grimaldi.
- 2. Exams.** There will be a midterm in-class exams on Wed. 11/3, and a final exam on Thu. 12/9, 10:15a.m.–12:15p.m.
- 3. Discussion and Quizzes.** In addition to weekly lectures, there is a discussion class on Tuesday. Quizzes are given weekly in the last 15 minutes of Tuesday class.
- 4. Homework.** Homework problems will be assigned each week and be due in on the following Wednesday. No late homework will be accepted.
- 5. Grading.** The grading distribution will be as follows:

Homework:	20%
Quizzes:	20%
Midterm Exam:	20%
Final Exam:	40%