## Math 232, Discrete Mathematics II, Winter 2011

Class Time: MTuWF 12-12:50p.m. in 105 Peterson

**Instructor:** Dr. Marcin Bownik

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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 second of three in the sequence, introduces students to the subject of discrete mathematics. Topics include:
  - (a) relations and functions (Cartesian products, properties of functions, the pigeonhole principle, directed graphs, partial orders, equivalence relations and partitions),
  - (b) languages and finite set machines,
  - (c) the principle of inclusion-exclusion and its applications,
  - (d) generating functions and recurrence relations.

The course, which is the second in the sequence, covers most of the chapters 5–8 of Grimaldi and selected topics from chapters 9–10.

- 2. **Exams.** There will be a midterm in-class exams on Wed. 2/9, and a final exam on Fri. 3/18, 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:

 $\begin{array}{lll} \mbox{Homework:} & 20\% \\ \mbox{Quizzes:} & 20\% \\ \mbox{Midterm Exam:} & 20\% \\ \mbox{Final Exam:} & 40\% \end{array}$