

**CAS MA 193 – Discrete Mathematics for Engineering
Fall 2005**

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Office hours: Tues. 11 a.m.-12 noon, Wed. 9:30-10:30 a.m., Thu. 11 a.m.-12 noon, and by appointment
Course website: http://courseinfo.bu.edu/courses/05fallcasma193_a1/
Includes announcements, homework assignments, grades, course documents, etc.

Course Objective: To provide you with a solid foundation of discrete and combinatorial mathematics while developing your critical thinking, problem solving, and communication skills.

Course Content: We will study combinatorics, logic, set theory, relations, functions, and graphs. Topics are treated with particular emphasis on applications to the engineering discipline.

Textbook: Discrete and Combinatorial Mathematics, 5th ed., by Ralph P. Grimaldi.
Chapters 1-3, 5, 7 will be covered.

Lectures and Discussion: Lecture: Tues., Thu. 9:30-10:30 a.m. COM 213. Discussion: Tues., Thu. 10:30-11:00 a.m. in COM 213. Attendance and active participation is required. You are encouraged to frequently ask questions and voice comments in order to aid in your understanding of the concepts.

Examinations: Two in-class midterm exams are scheduled for Thursday, October 13 and Thursday, November 17. If the university is closed on a scheduled midterm exam date, the exam will be given during the next class. The comprehensive final exam is scheduled for Thursday, December 15 from 12:30-2:30 p.m. in COM 213. The exams are closed book, and no materials other than writing utensils and calculators will be permitted.

Quizzes: During most weeks in which there is no exam, a quiz will be given on Thursday covering material specified during the previous class. The quiz problems will be based directly on the homework problems being turned in on that day, and the lowest quiz grade will be dropped to account for missed quizzes.

Homework: Homework is a crucial aspect of the course. Most of your learning will take place while solving (homework) problems. It is imperative that you are conscientious in making sure that you understand and communicate your solutions carefully and completely. Also, the quiz and exam problems will be based on your homework. The homework problems, corresponding to the material covered on quizzes, will be collected along with the quizzes. You are encouraged to work together on solving the homework, but solutions must be written up individually.

Assessment: Problems on exams, quizzes, and homework will be graded based on the completeness, clarity, and precision of the explanations leading up to and including the final answer. Answers without proper justification will receive no credit. **No make-up** quizzes, exams, or homework will be given unless there are extreme circumstances and proper documentation is provided. Academic misconduct will not be tolerated, and violations of the Academic Conduct Code will be dealt with according to the rules of the Code.

Course Grade: 10% Homework, 20% Quizzes, 20% Midterm 1, 20% Midterm 2, 30% Final Exam. The anticipated grading scale is the standard 10% for each letter grade breakdown, but favorable adjustments may be made to this scale at the end of the quarter.

Extra Help: You are encouraged to take advantage of my office hours and feel free to make appointments outside of the scheduled times. Visit the Math Help Room (MCS 144) for free tutoring provided by math graduate students. For hours, call (617) 353-2560 or check the schedule posted on the door. In addition, the University Educational Resource Center has a free tutoring program. For more information, call (617) 353-7077 or visit their website at www.bu.edu/erc. A list of private tutors for hire can be obtained in the math department office, MCS 142. Also, the textbook publisher's website provides additional resources for learning more about discrete and combinatorial mathematics: www.aw.com/grimaldi.

Advice: It is imperative that you keep up with the material covered in the course and actively participate in lecture and discussion. You will learn most effectively and reap the most benefits by working through many problems, not just those that you are required to turn in. Get individual help from myself, tutors, and your classmates as needed.