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Office Hours (held in Math Resource Center – Korman 247):
Mondays 3:00 – 4:00 pm; Wednesdays 3:00 – 4:00 pm & 5:00 – 6:00 pm


Goals and Expectations: Math 221 is a one-quarter course designed to introduce you to the study of discrete mathematical structures in analytic problem-solving, including basic set theory, probability and combinatorics, relations, the algebra of functions, encoding schemes, and basic graph theory.

Exams and Grading: There will be four fifty-minute midterm exams given in class on the Fridays of the third, fifth, seventh, and ninth weeks of the term (July 10, July 24, August 7, August 21). These midterm exams will be based on two weeks of class material. There will also be a comprehensive final exam.
Make-up exams are offered only under exceptional circumstances (documented in writing), only if approved before the scheduled exam, and always during the final exam period at the end of the term. Travel plans are not a legitimate reason for missing an exam. There is no make-up for the final exam.

Your final average will be based on:
Midterm Exams: 80% (20% each)
Final Exam: 25%

Your final letter grade will be based on your final average:
A+ 97 - 105   A  93 - 96   A- 90 - 92
B+ 87 - 89   B  83 - 86   B- 80 - 82
C+ 77 - 79   C  73 - 76   C- 70 - 72
D+ 65 - 69   D  60 - 64   F  0 - 59
Practice Problems:
The best way to be prepared for the exams is to do problems. A list of practice problems from the textbook will be provided on the website. Solutions to some of these problems will also be provided. Failure to do these practice problems will undoubtedly lead to poor performance on the exams.

Tentative Schedule:
Week 1: Proof Techniques (Section 2.1),
  Induction (2.2),
  Set Theory (3.1)
Week 2: Set Theory (cont’d)
Week 3: Counting (3.2),
  Inclusion and Exclusion and Pigeonhole Principle (3.3)
Week 4: Permutations and Combinations (3.4)
Week 5: Probability (3.5)
Week 6: Binomial Theorem (3.6),
  Relations (4.1)
Week 7: Relations (cont’d),
  Topological Sorting (4.2)
Week 8: Functions (4.4)
Week 9: Functions (cont’d),
  Graphs and Their Representations (5.1)
Week 10: Graphs (cont’d),
  Trees and Their Representations (5.2),
  Huffman Codes (5.4)

If we finish all of these topics early, we will discuss the following:
Euler Path and Hamiltonian Circuits (6.2)
Shortest Path and Minimal Spanning Tree (6.3)
Traversal Algorithms (6.4)