

Syllabus – Math 205 – Spring 2009

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Office Hours: Wednesday & Friday 12-1, Tuesday & Thursday 11-12

Time: Monday 2:00-2:50, Tuesday & Thursday 2:00-3:15
Room: Monday: 310 Fitzelle Hall; Tuesday & Thursday: 309 Fitzelle Hall
Text: *Discrete and Combinatorial Mathematics*, 5th edition,
R. Grimaldi, Pearson

Catalog Description: An introduction to topics in discrete structures. Topics include set theory, combinatorics, logic, proof techniques, functions, relations, pigeonhole principle, equivalence relations, recurrence and recursion, graphs and trees, number theory. Optional topics may include applications of combinatorics and graph theory.

Goals: Develop mastery of the most basic and essential ideas of rigorous mathematics, and an understanding of the various topics of discrete mathematics, as listed in the course description above. Through the completion of homework assignments, quizzes and exams, students will achieve the following:

- Enhance abstract and critical reasoning skills.
- Communicate mathematical ideas effectively.
- Demonstrate an understanding of key mathematical concepts.

SUNY General Education Attributes: LA

SUNY Learning Outcome: Students will show competence in the following quantitative reasoning skills: arithmetic, algebra, geometry, data analysis, and quantitative reasoning.

Grading Policy: Your grade will be determined by the following:

- Two midterm exams, each worth 15% of your grade.
- The final exam, cumulative and worth 20% of your grade.
- Class participation, 10% of your grade. To receive full credit, it suffices to attend every class (unless excused) and regularly contribute to the discussion.
- Homework and quizzes, 40% of your grade.

Your final grade will be assigned according to the following scheme:

A	$92 \leq x \leq 100$	B ⁻	$80 \leq x < 82$	D ⁺	$67 \leq x < 70$
A ⁻	$90 \leq x < 92$	C ⁺	$77 \leq x < 80$	D	$62 \leq x < 67$
B ⁺	$87 \leq x < 90$	C	$72 \leq x < 77$	D ⁻	$60 \leq x < 62$
B	$82 \leq x < 87$	C ⁻	$70 \leq x < 72$	E	$0 \leq x < 60$

Course Outline: We will cover selected topics from the first thirteen chapters of the text. Below is a tentative schedule.

Week of	M	T	Θ	Week of	M	T	Θ
12 Jan			1.1, 1.2	15 Mar	4.3, 5.1	5.1, 5.2	5.3
18 Jan	1.3	1.4	1.5	22 Mar	5.3	5.4	5.5
25 Jan	2.1	2.2	2.3	29 Mar	Review	Exam 2	7.1
1 Feb	2.4	2.4	2.5	5 Apr	X	X	X
8 Feb	2.5	3.1	3.1	12 Apr	X	7.1, 7.2	7.3
15 Feb	3.1	Review	Exam 1	19 Apr	7.4	8.1	8.2
22 Feb	X	X	X	26 Apr	8.2	Review	Review
1 Mar	3.2	3.2	3.3	3 May	Finals	Finals	Finals
8 Mar	4.1	4.1	4.1, 4.3				

Attendance: Please come to class regularly and on time. Any material missed due to an unexcused absence is the responsibility of the student.

Students missing 25% or more of class, any time from the second week of class up until the last day to withdraw from an individual course may be removed from the course by the instructor.

A word of advice: The best way to learn mathematics (or anything else) is to actively engage in the subject, by working out problems and discussing ideas with others. You are strongly encouraged to use our time together in class for this purpose. Read the relevant sections of the book *before* we cover it in class, so that you can ask questions. Not only will this help you learn the material, it will help your grade (see “Grading Policy” above).