SYLLABUS - Math 232(081)

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Textbooks: *Introduction to Mathematical Structures and Proofs,* by Larry J. Gerstein.
Contemporary Abstract Algebra 6e, by Joseph A. Gallian.

Evaluation: Total, 450 points.
Exam 1, 100 points; Exam 2, 100 points; Homework, 100 points; Final Exam, 150 points.

Week	Date	Section	Topic
1	Oct 11 - 15	Chapter 1	Propositions, Truth tables Conditional statements
2	Oct 18 - 22		Proofs
3	Oct 25 - 29		Logical equivalence Tautologies and Contradictions
4	Nov 1 - 5	Chapter 2	Sets Russell's paradox Quantifiers
5	Nov 8 - 12		Set inclusion Union, Intersection, Complement Indexed Sets
6	Nov 15 - 19		Power Sets Cartesian Products & Ordered Pairs
7	Nov 22 - 26		Partitions and Relations Mathematical Recursion & Induction
		First Exam	
8	Nov 29 -1 Dec	Chapter 3	Functions Surjections, Injections, Bijections Sequences Composition of functions
		Id al-Adha	
9	Dec 15 - 18	Chapter 4	Finite and Infinite Sets Cardinality Countability & Uncountability
10	Dec 20 - 24	Chapter 6	The Integers Operations and Order Divisibility and Primes
11	Dec 27 - Dec 31		Fundamental Theorem of Arithmetic Congruence
12	Jan 3 - Jan 7		Divisibility Tests Euler's Function
		Second Exam	
13	Jan 10 - Jan 14	*Algebra book* Chapter 2	Groups: definitions & examples Dihedral Groups
14	Jan 17 - Jan 21	Chapter 3 & 4	Finite groups, subgroups Cyclic groups
15	Jan 24 - Jan 31	Chapter 4	Permutation groups Cosets & Lagrange's Theorem