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MTH182 Syllabus

Spring 2025

Discrete Mathematics with Applications (5th ed.) S. Epp

Week of 1/20:
Introduction
Review of recurrence relations & weak induction   [5.1 - 5.3, 5.6, 5.7]

Week of 1/27:
Add/Drop/Audit deadline is Tuesday
Strong induction   [5.4, 5.9]
Integers: Divisibility   [4.4]

Week of 2/3:
Primes   [4.4, 4.8]
Exam I

Week of 2/10:
The quotient/remainder theorem (division algorithm)   [4.5]

Week of 2/17:
Presidents' Day *No class Tuesday*
Greatest common divisor & least common multiple
The Euclidean algorithm   [4.10]

Week of 2/24:
Pass/Fail deadline is Wednesday
The Fundamental Theorem of Arithmetic   [4.4, 5.4, 8.4]
Cryptography   [8.4]

Week of 3/3:
Integers in arbitrary bases   [2.5]
Exam II

Week of 3/10:
Spring Break

Week of 3/17:
    Relations [8.1]
    Equivalence relations & equivalence classes [8.2, 8.3]
    Congruence & arithmetic modulo n

Week of 3/24:
    Functions [7.1 - 7.3]

Week of 3/31:
    Bijective functions

Week of 4/7:
    Cardinality of sets [7.4]
    Exam III
    Withdrawal deadline is Friday

Week of 4/14:
    Patriots' Day *Class* does *meet on Tuesday*
    Algorithms
    Growth of functions [11.2]

Week of 4/21:
    Analysis of algorithms [11.3, 11.5]

Week of 4/28:
    Exam IV
    Last class is Tuesday