Professor Fine   **MTH182 Syllabus**   Spring 2024
LARTS-396E
910-6905
dfine@umassd.edu

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

Week of 1/22:
    Introduction
    Review of recurrence relations & weak induction   [5.1 - 5.3, 5.6, 5.7]

Week of 1/29:
    Add/Drop/Audit deadline is Monday
    Strong induction   [5.4, 5.9]
    Integers: Divisibility   [4.4]

Week of 2/5:
    Primes   [4.4, 4.8]
    Exam I

Week of 2/12:
    The quotient/remainder theorem (division algorithm)   [4.5]

Week of 2/19:
    Presidents' Day *No class Tuesday*
    Greatest common divisor & least common multiple
    The Euclidean algorithm   [4.10]

Week of 2/26:
    Pass/Fail deadline is Tuesday
    The Fundamental Theorem of Arithmetic   [4.4, 5.4, 8.4]
    Cryptography   [8.4]

Week of 3/4:
    Integers in arbitrary bases   [2.5]
    Exam II

Week of 3/11:
    Spring Break

Week of 3/18:
    Relations   [8.1]
    Equivalence relations & equivalence classes   [8.2, 8.3]
    Congruence & arithmetic modulo n

Week of 3/25:
    Functions   [7.1 - 7.3]

Week of 4/1:
    Bijective functions

Week of 4/8:
    Cardinality of sets   [7.4]
    Exam III
    Withdrawal deadline is Friday

Week of 4/15:
    Patriots' Day *Class* does *meet on Tuesday*
    Algorithms
    Growth of functions   [11.2]

Week of 4/22:
    Analysis of algorithms   [11.3, 11.5]

Week of 4/29:
    Exam IV
    Last class is Tuesday