Math 166 Weekly Schedule

Textbook: *Applied Finite Mathematics*, 2nd edition by Tomastik/Epstein

- Week 1
  - Sections L.1–L.2, 1.1
    Topics covered: logic, truth tables, sets
- Week 2
  - Sections 1.1–1.4
    Topics covered: number of elements in a set, sample spaces and events, basics of probability
- Week 3
  - Sections 1.4–1.7
    Topics covered: rules for probability, conditional probability, independent events, Bayes' Theorem
- Week 4
  - Section 1.7, Review, **Exam 1 (L.1–L.2, 1.1–1.7)**
    Topics covered: Bayes' Theorem (cont.)
- Week 5
  - Sections 2.1–2.2
    Topics covered: multiplication principle, permutations, combinations
- Week 6
  - Sections 2.3–2.4, 3.1
    Topics covered: probability applications of counting principles, Bernoulli trials, random variables
- Week 7
  - Sections 3.1–3.4
    Topics covered: random variables and histograms, measures of central tendency, measures of spread, normal distribution
- Week 8
  - Section 3.4, Review, **Exam 2 (2.1–2.4, 3.1–3.4)**
    Topics covered: normal distribution (cont.)
- Week 9
  - Sections F.1–F.3
    Topics covered: simple and compound interest, annuities, sinking funds
- Week 10
  - Section F.4, Intro to Systems, Sections 4.3–4.4
    Topics covered: amortizations, writing systems of linear equations, solving systems of linear equations with unique and non-unique solutions
- Week 11
  - Sections 4.4, 5.1–5.2
    Topics covered: systems of linear equations with non-unique solutions, matrices, matrix multiplication with applications
- Week 12
  - Section 5.3, Review, **Exam 3 (F.1–F.4, 4.3–4.4, 5.1–5.3)**
    Topics covered: inverse matrices
- Week 13
  - Sections M.1–M.3
    Topics covered: Markov processes, regular Markov processes, absorbing Markov processes
- Week 14
  - Sections G.1–G.2
    Topics covered: game theory
- Week 15
  - Review and Final Exams begin