I. Class Description, Logistics, Computing Resources

II. Optimization
   A. Univariate Case: Bracketing, Fixed Point, Newton-Raphson, Fisher Scoring, Secant Methods
   B. Multivariate Case
   C. EM Algorithm

III. Numerical Integration (Chapter 5)

IV. Simulation
   A. Inverse CDF Method
   B. Rejection Sampling
   C. Importance Sampling

V. Markov Chain Monte Carlo (Chapter 7)

V. Bootstrapping (Chapter 9)

VI. Bivariate Smoothing (Chapter 11)

VII. Other Topics
   A. Topic(s) chosen collaboratively as time permits. Some possibilities: combinatorial optimization, multivariate smoothing, advanced MCMC methods.
   B. Student talks.