Listed below are topics and articles which might cover the entire course; otherwise, another section will be added, perhaps on complex variable theory. Emphasis will be on complete mastery of the technical details of the articles.

Grades will be based on class participation to the extent feasible. Part of that participation will be class notes. Each week one (or a pair) of students will be responsible for writing up a set of class notes which they will xerox and distribute for the rest of the students. The notes will be evaluated for their pedagogical clarity as well as content. There will also be a mid-term and a final exam. An effort will be made to give students, prior to the exams, sets of questions from which the exams will be drawn. The weight given to the exams depends on how much weight can be given to class participation.

I. INTEGRATION AND DIFFERENTIAL EQUATIONS
(references: Samuelson started a lot of this in his '41 & '42 Econometrica articles criticizing Hicks. Cf his Foundations chs. 9 & 10
Baumol, Economic Dynamics, 2nd ed is very readable
M. Braun, Differential Equations and Their Applications (less obscure than most math books and good applications, e.g., Richardson's model)
Gilbert Strang, Linear Algebra & Its Applications, (update to R.A. Frazer, et. al., Elementary Matrices, '38 (dynamic systems classic!))
Sargent and Wallace "Stability of Models of Money and Growth with Perfect Foresight" Econometrica '73 (forward integration and first order system with a forcing function)
L. F. Richardson, Arms and Insecurity, 1960 (basic model from Braun)
(linear 2nd order systems, very similar to Samuelson's early work)
Roper "Using Phase Space for Interpreting Non-Autonomous Systems" AEJ '75
(2nd order systems with forcing function & complex roots)
Roper "Continuous Time Capitalization Formulas with Variable Yields" Public Finance, '81 (forcing functions & variable coefficient)

II. CALCULUS OF VARIATIONS AND OPTIMAL CONTROL
(references: Athans and Falb, Optimal Control, 1966 (exhaustive!)
Katsuhiko Ogata, State Space Analysis of Control Systems, '67 (underrated!)
Frank Ramsey "A Mathematical Theory of Savings" EJ '28 (early classic!)
Sidrauskis "Rational Choice and Patterns of Growth in a Monetary Economy" AER 1967
Dornbusch and Mussa "Consumption, Real Balances, and Hoarding" IER '75 (simplifying the Euler equation with constant returns)

III. DIFFERENCE EQUATIONS AND A BAYESIAN STATEMENT OF RATIONAL EXP
Muth "Rational Expectations and the Theory of Price Movements" Econometrica '61 (stochastic difference equation)
Robert Lucas "Some International Evidence on Output-Inflation Tradeoffs" (the Lucas supply function)
Frank Lad "A Subjectivist View of the Rational Expectations Hypothesis"