MATHEMATICAL THEORY FOR SOCIAL SCIENTISTS

Lecturer: D.S.G. Pollock

PART I: Functions, Derivatives and Series

PART II: Matrices and Linear Algebra

PART III: Difference and Differential Equations

PART IV: Calculus of Several Variables

23. Functions of Several Variables
24. Partial Derivatives
25. Quadratic Forms
26. Gradient Vectors and Hessian Matrices
27. Unconstrained Optimisation
28. Optimisation Subject to Constraints

Books

Thre are numerous books of mathematics for economists, some of which will serve our purposes adequately. Three of these are

[1] Chiang, A.C., *Fundamental Methods of Mathematical Economics,* McGraw-Hill Kogakusha.

[2] Simon, C.P. and L. Blume, *Mathematics for Economists,* W.W. Norton and Co.

[3] Holden, K. and A.W. Pearson, *Introductory Mathematics for Economics and Business,* Macmillan.