



**Mathematical Economics**  
**ECO 6405**

- I. Introduction to Economic Models
- II. Equilibrium
  - A. The Nature of Equilibrium
  - B. Matrix Algebra
  - C. Linear Models: Solutions with Matrix Algebra
- III. Comparative Static Analysis
  - A. Differentiation
  - B. Comparative Static Analysis in Economic Models
- IV. Optimization
  - A. Minimums and Maximums
  - B. Special Functions
  - C. With Multiple Choice Variables
  - D. With Constraints
- V. Dynamic Analysis
  - A. Integral Calculus
  - B. First-Order Differential Equations