

COURSE TITLE: Mathematics for Economists

COURSE NUMBER: Econ 530

SECTION TIMES/DAYS: TR 10:50-12:05

INSTRUCTOR: Dr. Dorothea Herreiner

COURSE DESCRIPTION/PRINCIPAL TOPICS

Review of fundamental mathematical concepts and logic. Treatment of linear algebra, univariate and multivariate calculus, real analysis, and unconstrained and constrained optimization.

The course will cover the mathematical tools and apply them to a variety of microeconomic and macroeconomic applications.

Required for the B.S. degree.

STUDENT LEARNING OUTCOMES

Students will be familiar with the mathematical tools described above and their uses in economics.

PREREQUISITES/RECOMMENDED BACKGROUND

Required:

Econ 310 Intermediate Microeconomics I

Math 112 Mathematical Analysis for Business II or

Math 131 Calculus I

RECOMMENDED TEXTS

Basic: Hoy/Livernois/McKenna/Rees/Stengos (2001), Mathematics for Economics, MIT Press.

Advanced: Corbae, D., Stinchcombe, M.B., Zeman, J. (2009), An Introduction to Mathematical Analysis for Economic Theory and Econometrics, Princeton University Press.

Linear Algebra: Rukington, D.A. (2007), Mathematical Tools for Economics, Blackwell.

Consult with instructor before acquiring book(s).

COURSE WORK/EXPECTATIONS

Regular problem sets.

Two midterms and a final exam.

Class Attendance and Participation.