Econ 5040  
Mathematics for Economists

This course is a survey of the mathematics necessary to study economics at the graduate level. The material emphasizes the prerequisite mathematics for graduate microeconomics, macroeconomics and econometric theory courses.

• The course covers linear algebra and the solution of linear economic and econometric models.
• The course covers single and multivariable calculus for the comparative static analysis of linear and general function economic models.
• The course emphasizes multivariable optimization theory with and without constraints.
• The course briefly introduces economic dynamics through the study of elementary differential and difference equations.
• All examples and problems presented in class come from material found in graduate level economics and econometrics courses.

Who should take this course:

• Undergraduate students interested in perusing graduate study in economics are strongly recommended to take this course.
• Students in other social sciences such as history, political science or sociology that use quantitative models would find the course very useful.
• Business students in accounting, finance and marketing that are interested in quantitative models would greatly benefit from this course.

**Prerequisites for the course are Junior standing and 12 or more credit hours of economics, including ECON 2010, ECON 2020, and either (MATH 1220 or MATH 1700); or instructor approval.