ECON 6808-001
INTRODUCTION TO QUANTITATIVE ECONOMICS
MWF 2:00-2:50
ECON 16

Fall 2002

INSTRUCTOR: Professor Frank S. T. Hsiao
OFFICE HOURS: M 3:00-4:00; W 3:00-4:30; F 3:00-3:30
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OFFICE: Economics Building 107
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Objectives: The purpose of this course is to provide a comprehensive exposition of basic mathematical instruments that are commonly used in all fields in economics—microeconomics, macroeconomics, econometrics, international trade and finance, public finance, money and banking, resource and environmental economics, urban and regional economics, labor and human resources, and industrial organization.

This course is required for the M.A. students. This semester the topics will cover dynamic economics. They include Chapters 12-15 of Klein.

Students are required to attend all lectures. They are expected to read the assigned reading materials or chapters prior to the lecture and complete their homework assignments on time.

Homework & Exercises: Exercises from chapters will be announced in the classes. Each homework assignment will be graded on a 10-point scale. Credit will be given only to the homework that is handed-in before or on the due date and time. Occasionally, an in-class exercise (same as homework) will be given. The exercises will be graded on the basis of 10 points.

Exams: The mid-term exam will mainly be based on the class notes, textbook examples, and homework questions. The final exam will be comprehensive. Some questions in the final will test your ability of applying what you have learned in the class. They may combine several homework questions or textbook examples, or their variation, in one large comprehensive question. Thus, in addition to reviewing the class notes, homework, and examples, you are encouraged to be imaginative and innovative.

Semester Grades: The semester grade will consist of 2 parts - Exam scores (20% for mid-term exams, 40% for the final), Homework scores (15%), Quiz and Attendance (5%). Probable cutoff points are in the vicinity of 90% (A-), 80% (B-), 70% (C-), 60% (D-), and some curving may be used.

NOTES:
1. Please attend the classes regularly. I expect every student to participate in all classes. Please make every attempt to attend the last four weeks of classes, otherwise, a surprise may be in store for you in the final.
2. Test dates will not be changed. Please prepare for the tests long before the test dates.
3. If you are going to miss or have missed the exams, hand in an explanatory statement and documentation (from the doctor or the court) to the instructor. No credits will be given to unexcused absences in examinations.
4. Please come (or call) to talk with the instructor about any problems related to this course.

Students with disabilities who may need academic accommodations should discuss options with their professors during the first two weeks of class.
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<td><strong>Difference Equations</strong></td>
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<td>15.2 Optimal Control Theory Sufficient Conditions</td>
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<td>15.3 Extensions and Applications of Optimal Control Theory</td>
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<td><strong>Tuesday December 17, 2002 (1:30-4:00pm)</strong></td>
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Check your final exam schedule during the first week of the semester. If you are concerned about the possibility of taking three or more final exams on the same day, please make any desired schedule adjustment during the drop-add period.
Basic References for ECON 6808
The following references are available in the Norlin Library.


Some References on the Importance of Mathematics in Economics
Samuelson, P., "Comments on Professor Samuelson on Operationalism in Economic Theory."

Other References:
This is a classic work with which every economist, whether or not he is interested in Mathematical Economics, must be acquainted. A must for graduate students.
Weber, J. E., *Mathematical Analysis - Business and Economics*  

There are many other textbooks on mathematics for economists. Most of them are survey type with more emphasis in techniques than economic applications. The following texts emphasize applications.

**Textbooks on Micro and Macroeconomics which use more Mathematics**  

**Textbooks on Calculus Recommended**  
Apostol, T.M., (1962, 67) *Calculus, I, II*, Braisdel. (An introductory to intermediate text, good examples.)  