Econ 5101B Review of Quantitative Methods
(for MSc students)
Chinese University of Hong Kong
Department of Economics
August 2012

Professor Kim-Sau Chung             Lecture: Mon, Wed, Fri 2:30 to 5:15 (Aug 2 to 30)
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Course Objectives
This course reviews some of the mathematical methods most widely used in modern economic analysis. We shall cover the following topics: set theory, real numbers, mathematical induction, integral calculus, continuous functions, differential calculus, logarithm and exponential, polynomial approximations to functions, differential equations, sequences and series, sequences and series of functions, vector algebra, and fixed point theorems.

Learning Outcomes
The primary goal of this course is to provide solid mathematics preparation for graduate study in economics. After taking this course, the students are expected to:
(i) master the basic mathematical methods most widely used in economic analysis;
(ii) become comfortable with reading and analyzing research papers in economics;
(iii) deepen the understanding of the nature and the role of mathematics in economic analysis.

Textbooks
Simon and Blume, Mathematics for Economists, Norton, 1994
Sundaram, A First Course in Optimization Theory, Cambridge, 1996

Grading
The course grade will be determined by midterm exam (50%) and final exam (50%). Homework exercises will be given regularly, but they will not be graded. Note that these exercises are essential adjunct to the lecture material, and will assist you in preparing for the exams. Thus, it is important to work on them carefully.

Exam Schedule
Midterm Exam: August 19 (Monday), in class.
Final Exam: TBA
Academic Honesty

For guidelines on academic honesty, students are referred to Honesty on Academic Work: A Guide for Students and Teachers at the following URL:
http://www.cuhk.edu.hk/policy/academichonesty/