

ECON5101B Review of Quantitative Methods

Chinese University of Hong Kong

Fall 2018

Professor YAO Feng

Email: yaofengyf@gmail.com

Office hour: 17:30-18:30 Wed or by appt, ELB

Lectures: Aug 17 – Aug 27, 2018

A teaching schedule with teaching time and venue will be distributed by Programme Office

Assistant Lecturer: Dr. Michael Leung

Email: cmleung123@hotmail.com

Office hour/Tutorials: schedule to be distributed

Professor WONG Kam Chau

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Office hour: 17:30-18:30 Wed or by appt, ELB 935

Lectures: Aug 30 – Sep 14, 2018

A teaching schedule with teaching time and venue will be distributed by Programme Office

Course Description

This course reviews some of the mathematical methods most widely used in modern economic analysis. We shall cover the following topics: linear algebra, fundamentals of probability, elementary real analysis, one-variable calculus, multivariable differential calculus, and static optimization theories. If time allows, dynamical optimization in discrete and continuous time will be covered as well. It is assumed that the students are familiar with basic calculus and elementary linear algebra.

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.

Recommended Textbooks

- ✧ Simon and Blume, *Mathematics for Economists*, Norton, 1994. (SB)
- ✧ Alpha C. Chiang & Kevin Wainwright, *Fundamental Methods of Mathematical Economics*, McGraw-Hill, 2005. (CW)

Grading

The course grade will be determined by homework (10%), class participation (10%), midterm exam (40%) and final exam (40%).

Attendance policies:

Students are required to attend all the lectures. Students absent from class for any reason are responsible for the missed work. Dr. Leung will count attendance for each period and those failing to attend three or more lectures will lose the class participation points in the grade.

Homework

There will be three to four homework exercises. Students are required to hand in their homework individually. Homework exercises will be collected for record but will not be graded. Suggested solutions will be provided in the tutorials. Homework exercises are meant to help students be familiar with the course materials. Therefore, even though the homework exercises will not be graded, students are expected to work on them carefully and attend the tutorial session.

Exam Schedule

Midterm Exam: TBA. Location: TBA.

Final Exam: TBA. Location: 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/>