ECON817 – Advanced Econometrics I, Spring 2023

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Classroom: 452 Snow Hall **Lecture Hours:** TR 1:00pm - 2:15pm
Office Hours: TR 11:00am-12:00pm or by Appointment
Teaching Assistant (TA): Jingwei Jin; e-mail: j786j574@ku.edu
Course Website: http://www.people.ku.edu/~z397c158/teach.html

Course Objective: This is one of the core courses required for the Ph.D. program in economics and it is about the study of estimation and hypothesis testing within the context of the stochastic simultaneous equation models, in particular for linear and nonlinear parametric regression models. It emphasizes on theory and methodologies as well as applications.

Prerequisite: ECON816, or consent of instructor.

Homework: Problems will be assigned at class meetings. No late homework will be accepted. Missed homework will receive a grade of zero. The homework will be collected at the end of each chapter and graded. You are allowed to work with other students on the homework problems. However, verbatim copying of homework is absolutely forbidden. Therefore, each of you must ultimately produce your own homework to be handed in and graded by myself or my TA. Homework assignments are long and painful and require a lot of effort on your part, but you will not be able to do well on exams without doing homework assignments.

Exams: You will have two exams for this course. The first exam is at the end of Chapter 4 (the date for the first exam will be determined later), and the second exam is as scheduled (1:30pm-4:00pm on May 9, Tuesday). The review session will be given before each exam, and also, you will have a review session before each exam by myself. The exam will be closed-book. However, you can bring a formula sheet (one page with double-side) to exams. No missed exam can be made up for any reason.

Academic Integrity & Attendance: You must read very carefully the KU Policy Statement: The Code of Student Academic Integrity. Any academic dishonesty by a student during the process of this course will be dealt with utmost rigor. Cheating in any form will result in an "F" for the course grade and may be reported to the Institute and University. Attendance is very important for this class and is strongly encouraged. It is your full responsibility to attend class for each lecture. Please let

me know in advance by sending an e-mail if you have to miss a class due to unavoidable reason.

Textbook: The main textbook is ***"Econometric Theory and Methods"*** by R. Davidson and J.G. MacKinnon (2004) [Oxford University Press, New York]. The topics include Chapters 1-8 if possible. In addition to the textbook, other materials or handouts, such as some advanced materials about matrix theory, Bootstrap, modern model selection, empirical likelihood, and HC-HAC consistent estimation of covariance matrix, will be provided when they are needed and indeed, they can be downloaded from the course website.

Computing Packages: If you use the R language, you can download it from the public web site at **http://www.r-project.org/** and install it into your own. You are STRONGLY encouraged to use (but not limited to) the package R since it is a very convenient programming language for doing quantitative analysis of real data using econometric methods and Monte Carol simulations as well as various applications in quantitative economics and finance.

Grade: Two exams make up 2/3 (1/3 for each exam) and homework counts 1/3 of the course grade.

Notes:

1. Note that about more information for this textbook, please visit the book whome page at http://qed.econ.queensu.ca/ETM/ and also the data files for exercises can be download at http://qed.econ.queensu.ca/ETM/data/.

2. When you submit your solutions to each of your homework assignments, for paperless purpose, please use e-version by a PDF file and send the PDF file to both me and my TA via e-mail. Please use your name as your file name.