

University of Guelph
COLLEGE OF MANAGEMENT AND ECONOMICS
DEPARTMENT OF ECONOMICS AND FINANCE

ECON 4840/6180: (Applied) Econometrics Methods

Winter 2012

Instructor: Y. Sun

Office : 709 MacKinnon, Ext. 58948

Office Hours: M/W 2:00pm-5:00pm

Classes: M/W 10:00am-11:20am

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement and the drop date for this semester. To better understand these policies, visit:

www.economics.uoguelph.ca/student-responsibilities-policies.asp

COURSE OUTLINE

This course follows ECON3740, where students have learned to use the OLS method to analyze cross-sectional data. Now we will extend the OLS estimation method to time-series data and in the end to panel data which has both cross-time and cross-sectional attributes. As both macro-econometrics and finance are research fields that, by nature, deal with time series data, I will use both macro data and finance data to illustrate how to apply the econometric methods taught in class. Since the empirical applications listed in the textbook solely focus in financial econometrics, I will provide additional examples in macro-econometrics along the semester. The students, of course, are not required to have a major in finance or strong background in macroeconomics to take this course.

Topics to be covered:

- (1) Univariate and Multivariate Time Series Analysis
- (2) Modeling Conditional Volatility and Correlation
- (3) Panel Data Models
- (4) Others (e.g. Limited Dependent Variable Models and/or simulation methods)

Marking scheme:

30% Assignments (tentatively SIX, each worth 5%; on average, one assignment every other week)

20% Term paper (apply the knowledge learned in class to real world problems)

20% Midterm exam (in class; TBA)

30% Final exam (April 13, 2012, 8:30am-10:30am)

Software: TSP, STATA, EVIEW, RAT, SHAZAMS, R, etc.

Textbook:

Brooks, Chris, 2008. Introductory to Econometrics for Finance, 2nd Edition. Cambridge University Press. (Tentatively, we will cover Chapters 5 to 12.)

Reference book:

- 1) Brockwell and R.A. Davis, 1996. Introduction to Time Series and Forecasting. Springer Verlag; ISBN: 0387947191.
- 2) Wooldridge, J.M., 2008. Introductory Econometrics: a Modern Approach, 4th Edition. Thomson: South-Western.

Note:

- A. The term paper is due on **April 15, 2011**, and it should be double spaced with at least five pages. Please read Chapter 1.5 and Chapter 13 for finding a topic and the format of the term paper. Writing a term paper is a crucial way of enhancing ones understanding of the course materials. I would like to invite every and each student to talk to you about his/her idea one month before the deadline and give a 1% bonus for the effort of communication.
- B. You will be asked to complete an evaluation of this course at sometime during the last two weeks of the semester. The Department of Economics policy regarding the conduct and use of these evaluations will be found at:

<http://www.economics.uoguelph.ca/course-evaluation.asp>