GU 4412: Advanced Econometrics Fall 2016
Columbia University

Professor: Serena Ng (IAB 1117)
Teaching Assistant: Jean-Jacques Forneron (jmf2209)
Class: T, Th. 1:10-2:25, 420 Pupin
Assignment Mailbox : TBA in IAB 1022
Recitation: T, 6-6:50pm, Hamilton 503

Objectives and Pre-requisites   This course is intended for students who have taken and passed
EC 3412 (Stock/Watson's or Wooldridge's Introductory textbook), linear algebra (V2010), inter-
mediate microeconomics (W3211), and macroeconomics (W3213). In case if the class size exceeds
the limit, priority will be given to full-time registered Columbia students. Visiting students can sit
in subject to space constraints. There is no auditing for this course.

Textbook: Greene, W. Econometric Analysis, 7th Edition, Prentice Hall.

Evaluation: The final grade will depend on your relative standing in class, not the absolute points
you get in the exams. Historically, the class average has been B+.

6 problem sets	:	30%	
Exam 1 (October 20)	:	30%	Topics 1-4
Exam 2 (December 8)	:	30%	Topics 5-10
Pop quiz	:	10%	

If you miss Exam 1, Exam 2 will count for 60% of your grade. No make up exam will be given.
There will be no exception. Problem sets will be assigned as we move along and collected six times.
The late penalty is 2 points per day. Programming lanaguages other than MATLAB and R will
not be allowed, and spreadsheets will be strictly prohibited.

Topics to be Covered

1 OLS in Matrix Form: Chapter 3
2 Finite Sample and Asymptotic Properties: Chapter 4
3 Hypothesis testing: Chapter 5.1-5.7
4 GLS: Chapter 9.3
5 Maximum Likeilihood: Chapter 14.1-14.6
6 Endogeneity, Chapter 8.1-8.4, 8.7
7 Stationary time series: Chapter 20
8 Nonstationary time series: Chapter 21
9 Panel data: Chapter 18.1-18.5
10 Discrete Choice Models: Chapter 17.1-17.3

Office Hours: W, 9:30-11:30 or whenever you can catch me in the office (8am-4pm most days).
You will unlikely get a response if you contact me by email, especially on weekends!