

**TOPICS IN ECONOMETRICS
ECON 618A**

**F 2009
Class time: TR 11:40-1:05
Meeting Place: FA354**

Instructor: Subal C. Kumbhakar

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This course is an advanced econometrics class designed for the people interested in serious applied econometric works. Econ 616 and Econ 617 are required as prerequisite primarily because you need to know nonlinear and simultaneous equations, identification, etc. We will use single and simultaneous equation approach (linear as well as nonlinear) from the very beginning. The main objective of the course is to encourage students to engage in "hands-on" econometrics. Therefore, it is not designed for those who think that all you need to know is theory or for that matter to those who think that all you need to know is how to use the canned statistical packages. I plan to go over some important papers and hope that you will be able to read and understand similar papers. The course will be focused on panel data models with applications from production theory.

There is, in fact, not a single text covering the above materials. The book by Chambers (Applied production analysis) is useful for theoretical properties of production, cost and profit functions. Kumbhakar and Lovell's book is useful for econometric estimation of stochastic production, cost and profit frontier models. The Berndt book -- The Practice of Econometrics -- is very useful to engage yourself in "hands-on" econometrics, especially in doing the exercises some of which will be used as computer assignments. The books by Hsiao and Baltagi on panel data are very good.

B. Baltagi, *Econometric Analysis of Panel Data* (2008), 4th edition (Wiley).

C. Hsiao, *Analysis of Panel Data* (2003), 2nd Edition (Cambridge).

S. Kumbhakar and C.A.K. Lovell (2000), *Stochastic Frontier Analysis*, paperback (Cambridge).

R. Chambers (1988), *Applied Production Analysis* (Cambridge).

E. Berndt (1991), *The Practice of Econometrics* (Addison Wesley).

Grading Policy:

a) One term paper (preferably using the techniques discussed in the class). This should be more than just an application. The proposal for the paper should be approved before the final version is made. Weight = 60%.

b) Replications/computer assignments. Weight = 40%.

Computer skill requirement:

Since the available statistical packages cannot handle all the problems that we will be dealing with, it would be of great help if you were familiar with programming. Familiarity with one or more of these packages SAS, STATA, GAUSS is required. For panel models STATA is the best!!

A detailed bibliography is available.