Fall 2019 **ECO7426 ECONOMETRICS METHOD I** Instructor: C. Ai

Office: Mat #336 Phone: 2-7859
Office Hours: by appointment tsinghua@ufl.edu

Reading List

The main objective of this course is to equip students with adequate econometric techniques so that they can conduct cross-sectional empirical research. Topics covered include estimation, hypothesis testing, and panel data in nonlinear models. When time permits, some additional topics such as quantile regression will also be taught. Students are required to have knowledge of at least one statistical package and basic econometrics at the level of ECO 7424.

The materials covered in this course come mainly from Jeffrey Wooldridge, ***Econometric Analysis of Cross Section and Panel Data***, MIT Press, 2010.

The grades of this course will be based on multiple exams. The exact dates of the exams will be announced in class.

Useful reference texts are:

W. Green, *Econometric Analysis*, Macmillan.

H. White, *Estimation, Inference and Specification Analysis*, Cambridge University Press.

L.G. Godfrey, *Misspecification Tests in Econometrics*, Cambridge University Press.

Topic 0: Review of Linear Models

Topic I: Review of Maximum Likelihood Estimation

Wooldridge, Chapter 13

Topic II: Discrete Choice Model

Wooldridge, Chapter 15-16.

D. McFadden, "Econometric Analysis of Qualitative Response Models," Handbook Of Econometrics, Vol. 2, 1396-1402

J. Dubin and D. McFadden, "An Econometric Analysis of Residential Electric Appliance Holdings and Consumption," Econometrica 52, 1984

First in-class quiz

Topic III: Truncation and Sample Selection

Wooldridge, Chapter 17, 19

J. Hausman and D. Wise, "Attrition in Experimental and Panel Data," Econometrica, 1979, 47, 455-473

C. Manski and D. McFadden, "Alternative Estimators and Sample Designs for Discrete Choice Analysis," In C. Manski and D. McFadden, ed. Structural Analysis of Discrete Data, 1981, Cambridge, MIT Press

Second Quiz

Topic IV: Count Data

Wooldridge, Chapter 19

Hausman et al., "Econometric Models for Count Data with an Application to the Patent R&D Relationship", Econometrica 52, 909-938, 1984

Topic V: Duration Analysis

Wooldridge, Chapter 20

N.M. Kiefer, "Economic Duration Data and Hazard Functions," Journal of Economic Literature, 1988, 26

J. Heckman and B. Singer, "Econometric Analysis of Longitudinal Data," Handbook of Econometrics, Vol. 3, 1690-1763

T. Lancaster, "Econometric Methods for the Duration of Unemployment," Econometrica, 1979, 47, 939-956

D. McFadden, "Questions on Modeling Employment Duration," Mimeo

P. Diamond and J. A. Hausman, Individual Retirement and Savings Behavior," Journal of Public Economics, 1984, 23, 81-114.

Third Quiz

Topic VI: Simultaneous equations models with truncated and censored variables.

Maddala, Chapter 7.

Topic VII: Generalized Method of Moment Estimation

Wooldridge, Chapter 14

D. McFadden and W. Newey, "Large Sample Estimation and Hypothesis Testing," Handbook of Econometrics IV, Chapter 36.

Amemiya, "Non-Linear Regression Models", Handbook of Econometrics I, 334-389

L.P. Hansen, "Large Sample Properties of GMM Estimators," Econometrica 50, 1985, 1029-1054

Robinson, P., "Best Nonlinear Three-Stage Least Squares Estimation of Certain Econometric Models," Econometrica 59, 1991, 755-786

L. Hansen and K. Singleton, "Generalized IV Estimation of Nonlinear Rational Expectations Models," Econometrica, 50, 1982

R. Engle, "Wald, LR and LM Tests in Econometrics" Handbook of Econometrics, Vol. 2, 775-825

W. Newey, "Maximum Likelihood Specification Testing and Conditional Moment Test," Econometrica, 1985, 53, 1047-1070

Topic VIII: Quantile Regresion

Buchinsky, M. (1997), “Recent Advances in Quantile Regression Models,” Journal of Human Resources, p.88-125.

Koenker, R. and G. Bassett (1978), “Regression Quantiles”, Econometrica, Vol 46, No. 1, 33-50.

Powell, J. (1984), “Least Absolute Deviations Estimation for the Censored Regression Model”, Journal of Econometrics, 25, 303-325.

Honore, B.E., S. Kahn, and J. Powell (2002), “Quantile Regression under Random Censoring”, Journal of Econometrics, Volume 109, Issue 1, July 2002, Pages 67-105