ECON 670 – FALL 2015
SYSTEM AND PANEL ECONOMETRIC MODELS
T-R 3:00-4:15PM Rm. 323 Cavanaugh Hall
Course Syllabus

● Instructor: Joseph Terza

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● Office Hrs.: Wednesday 9:30am-12:30pm, and by appointment

● Course Website: https://oncourse.iu.edu/portal

● Prerequisite Course:
E571. If you have not successfully completed E571 you cannot be enrolled in this class.

● Software: Stata 14®.

● Exams, Homework and Grading:
1. There will be four quarterly cumulative exams -- a midterm exam and a final. Your grade will be based on the average score on these four exams

● Course objectives:

There are three objectives of this course— 1) to introduce the student to the use of econometric methods for policy analysis and causal inference; 2) to introduce the student to the consequences of, and methodological remedies for, violations of the assumptions of the classical linear regression model; and 3) to achieve objectives 1 and 2 in applied contexts with “real world” datasets.

● Academic Integrity Policy:
Indiana University-Purdue University Indianapolis has a Code of Student Conduct, administered by the office of the Dean of Students. This Code sets standards for academic integrity at IUPUI for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism.
• Topics to be Covered, Assigned Readings, and [Supplementary Reading]:

1. Introduction to Econometrics from a Policy Analytic Perspective including a Review of the Multiple Linear Regression Model (MLRM) in a Policy Analytic Context: Matrix Notation, Classical Assumptions, the Ordinary Least Squares (OLS) Estimator, Confidence Intervals and Hypothesis Testing.
   TE – Chapter 7
   [GR – Chapter 2, Chapter 3 (3.1, 3.2), Chapter 4 (4.1 – 4.4, 4.6, 4.7), Chapter 5 (5.1 – 5.3), Appendix A
   CT – Chapter 4 (4.1 – 4.4)]

   TE – Chapter 8
   [GR – Chapter 6 (6.1 – 6.3), Chapter 11 (11.1 – 11.3 except for 11.2.4)
   WO – Chapter 12 (12.1, 12.4, 12.7), Chapter 13 (13.1 – 13.3, 13.10)
   CT – Chapter 5, Chapter 10]

   TE – Chapter 9
   [GR – Appendix D, Chapter 4 (4.9), Chapter 11 (11.2.4, 11.4, 11.6)
   WO – Chapter 3, Chapter 4 (4.2), Chapter 12 (12.2, 12.3, 12.5, 12.6), Chapter 13 (13.4 – 13.6, 13.10)
   CT – Appendix A
   NM
   WH – Chapters 1-6, especially Chapter 6]

4. Discrete choice models: Binary Response Models (Probit, Logit), Ordered Response Models (Ordered Probit/Logit), Multinomial Response (Multinomial Logit, Nested Logit, Mixed Logit).
   TE -- Chapter 10
   [GR – Chapter 23 (23.1 – 23.4, 23.10.1, 23.11.1 – 23.11.7)
   WO – Chapter 15 (15.1 – 15.7, 15.9, 15.10)
   CT – Chapter 14 (14.1 – 14.4), Chapter 15]

5. Count-Valued Dependent Variable Models
   TE -- Chapter 16
   [GR – Chapter 18 (18.4)
   WO – Chapter 18 (18.2)
   CT – Chapter 20]

6. Sample Selection Models
   TE – Chapter 14
   [GR – Section 24.5 (24.5.1 – 24.5.7)
   WO – Chapter 17 (17.1 – 17.4)
7. Limited Dependent Variable Models: Censored Data, Two-Part Models
   TE -- Chapter 11  
   [GR -- Chapter 24 (24.1 – 24.3)  
   WO -- Chapter 16 (16.1 – 16.7)  
   CT -- Chapter 16 (16.1 – 16.4)]

8. Violations of the Classical Exogeneity Assumption: Linear and Nonlinear Estimation in the Presence of Endogenous Regressors
   TE -- Chapter 12  
   [GR -- Chapter 12 (12.1 – 12.7), 23.7  
   WO -- 15.7 (15.7.1 – 15.7.3)  
   CT -- Chapter 6 (6.1, 6.2, 6.4)]

   TE -- Chapter 13  
   [GR -- Chapter 15, 16.6  
   WO -- Chapter 14 (14.1 – 14.3, 14.5)  
   CT -- Chapter 6 (6.3, 6.5, 6.6)]

10. Specification and Estimation of Endogenous and Heterogeneous Policy Effects
    TE -- Chapter 15
    HVa  
    HVb  
    [HUV  
    BA]

Texts and Readings for This Course:

The Assigned Text for this Course is:


Supplementary Readings from Econometrics Texts:


Supplementary Readings from Journal Articles and Working Papers:


