Jeff Grogger                                                     Winter 2018
Harris School                                                  University of Chicago

## PP 313: Regression Analysis for Public Policy II

Winter 2018: TTh 10:30 - 11:50 am, Room 140C

**Instructor**:          Jeffrey Grogger
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**Teaching Assistants:**

| Name | Email | Section time/place |
|------|-------|--------------------|
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**NOTE: Due to a scheduling conflict, there will be no class on Thursday, January 4. The last class will be held on Thursday, March 8.**

**Web site**: All materials for the class will be posted to its site on Canvas.

**Course content**: This class covers basic Gauss-Markov theory and other topics in regression analysis.

**Prerequisites**: PP 312 or equivalent.

**Reference**: The text for the class is Jeffrey Wooldridge, Introductory Econometrics, 5th edition.  If you choose to use a different edition, the responsibility for cross-walking the reading assignments lies with you.

**Grading**: There will be a four problem sets, a midterm, and a final exam.  Problem sets will include paper-and-pencil problems and estimation exercises.

*Problem sets*: Students may work together on problem sets but each student must write up his/her answer set individually.  Write-ups that are materially similar between students will be regarded as cheating and receive zero credit.  Problem sets will count for 1/2 of the course grade.

Problem sets will be posted to the website as soon as they are available.  Answer keys will be posted to the website shortly after class on the date that the problem sets are due. Therefore, problem sets are due in class on the due date and *no late problem sets will be accepted*.  The due date for each problem set will appear on the heading of the problem set.

**Exams**.  The exams will count for 1/2 of the course grade, with greater weight given to the final. The midterm will be held in class on Tuesday, February 6.  The final will be

held on Monday, March 12, 1:30 – 3:30pm, Room 289B.  ***There will be no make-up exams***.

**Topics and Readings**

1. Bivariate Linear Regression, Ch. 2

2. Multivariate Linear Regression

      a. Estimation, Ch. 3
      b. Inference, Ch. 4
      c. Asymptotic Inference, Ch. 5

3. Specification Issues

      a. Functional form, Chs. 2, 6
      a. Dummy Variables, Ch. 7

4. Heteroskedasticity, Ch. 8

      a. Non-Spherical Disturbances and OLS, Ch. 8.2
      b. Generalized Least Squares, Ch. 8.3
      c. Heteroskedasticity, Ch. 8.4-8.5

5. Models for Panel Data, Chs. 13, 14

6. Instrumental Variables, Ch. 15

7. Limited Dependent Variables, Ch. 17

Other readings will be added to the Canvas page from time to time.