ECON 7335: Applied Econometrics  
Fall 2017 Course Syllabus  
Lecture: Mondays and Wednesdays 2:30pm-4:00pm, Agnes Arnold Hall Room 15 (AH15)

Instructor:  Professor Aimee Chin (email: achin@uh.edu; website: www.uh.edu/~achin)  
Office: McElhinney Room 221B  
Office hours: W 1:15-2:00pm, 4:00-4:40pm. Meetings at other times must be arranged in advance.

TAs: Arpita Chakravorty (achakravorty@uh.edu)  
Tom Nguyen (ttnguyen209@uh.edu)  
Office hours: Meetings must be arranged in advance.

Description  
The purpose of this course is to expose students to some econometric techniques frequently used in applied microeconomic research. The course features critical reading of empirical research papers and the implementation of econometric methods on actual data sets.

Learning Outcomes  
• Students will attain, through lectures, readings and problem sets, knowledge about how to analyze quantitative data and how to draw inferences from statistical measures.  
• Students will be able to critically assess empirical research, and to thoughtfully produce their own empirical research.

Prerequisites  
To take this course, you must have either: (1) passed Econometrics I (ECON 7331), or (2) received prior explicit permission from me.

Textbooks  
There are two required textbooks:  
2) Joshua D. Angrist and Jorn-Steffen Pischke, Mostly Harmless Econometrics: An Empiricist’s Companion, Princeton University Press, 2009. (There is only one edition, however new copies contain some corrections to the original version; the book’s website http://www.mostlyharmlesseconometrics.com/ lists some errata but I recommend buying a new copy corrected for the errata. The data and commands used to produce the tables shown in the book are available here: http://economics.mit.edu/faculty/angrist/data1/mhe .)

In addition to textbook readings, there will be journal article and working paper readings required for this course. Journal articles can be obtained through UH Libraries by searching e-Journal titles (http://info.lib.uh.edu/ ), accessing the digital version of the journal, then locating the specific article. For working papers on the reading list, I will typically provide the URL.
Requirements and Grading

1) problem sets  
   Approximately every 1-2 weeks  
   50%

2) final exam  
   In-class exam on Wednesday November 29  
   35%

3) class participation  
   Combination of attendance, preparedness for class and quality of classroom comments  
   15%

Problem Sets: Problem set assignments will be posted on UH Blackboard Learn (go to http://www.uh.edu/blackboard/ and click on the “Log In Here: Blackboard Learn” button). Some will involve data exercises. For the data exercises, we will use Stata. [Public versions of Stata are available at selected locations on UH campus including your computer lab and the library (on Learning Commons computers, or remotely via the Libraries’ Virtual Learning Commons, remote access instructions here: http://ask.lib.uh.edu/faq/169186), but I recommend that you purchase your own copy. UH has an agreement with Stata Corp. called “GradPlan” which allows students to purchase its software at reduced rates; see http://www.stata.com/order/new/edu/gradplans/student-pricing/. The cheapest option--Stata/IC 14 six-month license for $45--is sufficient for our course but you may choose a different option if you are planning to use Stata for your research later. If you have an older version of Stata already, that is fine to use for our course.] Students are encouraged to work together on problem sets. However, each student must write up his/her own problem set. No copies will be accepted, and this includes programs.

Final Exam: This will be a closed-book exam covering all the material of the course.

Class Participation: Students are expected to attend every lecture, complete the readings in advance of the lecture, and participate in classroom discussion. If you miss a lecture, it is your responsibility to learn the material missed. I usually provide a handout containing the lecture slides for each lecture; when you miss a lecture, you cannot get the handout for that missed lecture from me. Pop quizzes will be administered during certain lectures and counted as part of the class participation score.

There will be no make-ups or extensions given for assignments and exam except with prior consent from me or in the event of an unexpected emergency.

I strongly encourage you to attend the University of Houston Empirical Microeconomics Workshop which is held Tuesdays 3:30-5:00pm in McElhinney Room 212 (see my website or the department website for the schedule of speakers). Though seminar attendance is not counted in your grade for this class, attending seminars is an excellent way to expose yourself to current research, learn what a research paper comprises, and learn how to give oral presentations.

General Policies

1) Lectures will begin at 2:30pm and end at 3:50pm.

2) Adhere to the university’s academic honesty policy (it is described in the Student Handbook as well as http://www.uh.edu/provost/academic-affairs/policy-guidelines/honesty-policy/).

3) If you have special learning needs, please contact me. I can make accommodations only if given advance notice.

UH CAPS Statement

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS
(http://www.uh.edu/caps/) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the “Let’s Talk” program, a drop-in consultation service at convenient locations and hours around campus (http://www.uh.edu/caps/outreach/lets_talk.html).

**Course Outline and Reading List (subject to change)**

1. **Introduction**
   - Angrist and Pischke Chapter 1
   - Wooldridge, Chapters 1-4

2. **The Selection Problem and Random Assignment**
   - Angrist and Pischke Chapter 2
   - Wooldridge, Chapter 21
   - Summer 2011 issue of *Journal of Economic Perspectives* has a symposium on field experiments.


3. Controlling for Confounding Variables (Regression, Matching)

Angrist and Pischke Chapter 3

Wooldridge, Chapters 1-4, 21.3


4. Panel Data and Difference-in-Differences

Angrist and Pischke Chapters 5, 8

Wooldridge Chapters 6.5, 10, 11


5. **Instrumental Variables**

Angrist and Pischke Chapter 4

Wooldridge Chapter 5, 21.4


6. **Regression Discontinuity Designs**

Angrist and Pischke Chapter 6

Wooldridge Chapter 21.5


7. **Regression Kink Designs**


8. **Other Topics** (time permitting; topics and readings to be determined)