

**STANFORD UNIVERSITY**  
**Department of Economics**

ECONOMICS 103

WINTER 2008

**Applied Econometrics**

- Instructor: Professor Nick Bloom  
Office: Economics 231  
Email: nbloom@stanford.edu  
Lecture Hours: Mondays 9:00-10:50am, EDUC230  
Wednesdays 9:00-10:50am, EDUC230  
Office Hours: Mondays 11:00 – 12:00, ECON 231  
Wednesdays 11:00-12:00, ECON 231  
Teaching Assistants: TBD  
Grading: Class Involvement 20%  
Research Presentations 40%  
Research Project 40%
- Suggested Texts: Greene, Econometric Analysis (Prentice Hall)  
Berndt, The Practice of Econometrics: Classic and Contemporary  
(Addison-Wesley)
- Software: You will need to use appropriate software to do the research project. The software must be an econometrics package which is capable of providing estimates by instrumental variables. The suggested software for this is Stata, although other packages such as TSP, EViews and SAS are also suitable although I am not familiar with these so can provide as much support/advice. The use of Excel alone along is not sufficient for the research project.
- Deadlines: First presentation, Wednesday 16<sup>th</sup> January  
Research projects outline, Wednesday 30<sup>th</sup> January  
Mid-point presentation, Monday 11<sup>th</sup> February  
Final presentation, Monday 3<sup>rd</sup> March  
Final project document, Wednesday 12<sup>th</sup> March

Course Description: The course will aim to cover three areas:

- A) The primary aim is to develop students ability to undertake research projects. A key economic skill is the ability to pursue a research idea in terms of: thinking about an interesting question, developing a strategy for investigating this empirically, producing results and investigating robustness of results. The course will require every student to undertake a research project involving econometric investigation of a clearly defined topic. This will be presented once as a mid-term and once again at the end of the term as a final presentation. A final project will then be handed in the following week. Students will be given one-on-one help on pursuing this research topic, which will form the main part of the lecture hours.

Students are welcome to have this research form part of a subsequent honors thesis. This course is not suitable for anyone who does not want to conduct a piece of research – it will be primarily research and supervision based rather than class-room teaching based.

Your project must focus on a scientific question; it cannot be merely descriptive. Examples of scientific questions include: Does much market power (measured by the ratio of price to marginal cost) depend on competition and trade openness? Do the stock market values respond to firm's taking out patents? What is the elasticity of labor supply with respect to the wage? What effects individuals self-perception of their ability? How do surveys respond to the way questions are framed? The scientific question can have a clear policy application—for example, what is the effect of the minimum wage on teenage employment?

- B) Explaining the concept of empirical identification and causality. Economists place probably the strongest emphasis among all social scientists on identifying the causal mechanism driving statistical relationships (rather than correlations). Without a clear view on the causation driving any statistical relationships inferring meaningful results is extremely difficult. The first part of the course will highlight this issue in theory (instrumental variables, natural experiments and true experiments) and in practice using some well known empirical papers as case studies.
- C) Develop research presentation skills. A key part of academic and professional research is the ability to present results clearly, convincingly and succinctly. The course will aim to teach students some basic rules on research presentation, and provide open individual feedback to students on this based on their own research presentations.

I will do my best to make the course interesting, useful and rewarding to you. However, for many of you this will not be an easy course. You will be expected to undertake a serious piece of research as part of the course with ongoing discussion and a mid-term presentation. This means that this course is not suitable for pulling all-nighters just prior to the final research presentation. A better strategy is to work continuously. Please do not hesitate to come to us at the first sign of trouble.

Prerequisites: Econ 52 and 102B. For more information on prerequisites please contact the office for undergraduate studies at the economics department (not Professor Bloom).

Midterm and Final Exams: There will be one midterm presentation, one final presentation and one handed in project on which grades are based, plus an average assessment of class-room involvement throughout the course. There will be no other grading system (make-up exams, or early or late presentations)

Students with documented disabilities: students who have a physical or mental impairment that may necessitate an academic accommodation or the use of auxiliary aids

and services in a class must initiate a request with the Student Disability Resource Center (SDRC). The SDRC will evaluate the request along with the required documentation, recommend appropriate accommodations, and prepare a verification letter dated in the current academic term in which the request is being made. Please contact the SDRC as soon as possible; timely notice is needed to arrange for appropriate accommodations. The SDRC is located at 563 Salvatierra Walk (phone 723-1066 Voice; 725-1067 TTY; <http://www.stanford.edu/group/DRC/>).

Economics Department Common Course Policies: All courses taught in the Stanford Department of Economics are governed by a common set of course management rules. A document explaining these rules is included on our coursework website, and on the Economics Department website at <http://www-econ.stanford.edu/academics/courses.html>. Please be sure to read this document in its entirety, and contact Professor Cojoc or me if you have any questions.

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