

Stanford University
Department of Economics
Spring Quarter 2003

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Hall@Hoover
<http://www.stanford.edu/~rehall/>
Office hours: 3:15 to 4:15 pm Tuesdays

Course web site:
<http://www.stanford.edu/class/econ103/>

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Office hours: Tuesdays, 3:15-5 p.m. and
6-8 p.m.;
Thursdays, 5:15-6:45 p.m.

Economics 103: Applied Economic Analysis

Economics 103 covers the use of econometric methods to investigate scientific and policy issues in economics. Economics 51 and 102B are strict prerequisites—not only must you have taken those courses, but you must have a good current knowledge of their subjects.

The course is intended to be useful to students with interests in any branch of applied microeconomics, including macroeconomics. If you plan to work in macro, you should have completed Economics 52 as well.

An important part of the course is an independent research project. You will choose a topic, locate data, apply econometric methods, and present your findings in a paper and to the class.

The class will meet Tuesdays and Thursdays in Encina W202 from 1:15 to 3:05.

Textbooks and other materials

Required textbook: James Stock and Mark Watson, *Introduction to Econometrics*, 2003

I will distribute handouts and they will also be available from the course web site.

Computers and software

You will need to be able to use the computer with appropriate software to do the problem sets and the project. You may use any computer together with software known to give reliable results in econometric methods. The software must be capable of providing estimates by instrumental variables, the method emphasized in the course. Software such as TSP, EViews, Stata, or SAS, is fine.

Problem sets

We will have weekly problem sets at the outset. These will sharpen your skills in economic theory, econometrics, and using the computer. Late problem sets will be marked down 1 grade point per day (on a scale of 4). You may collaborate on problem sets, but you must turn in your own individual write-up of the results, done separately from your collaborators.

Initial presentation

You will give a brief presentation in class around April 15 on an assigned econometric exercise.

Research project

The main focus of the course will be your research project. You may work by yourself or in groups as large as three students. The essence of a good project is finding an interesting hypothesis to investigate and a body of data that will enable you to make that investigation. The projects we study in class will provide some examples.

An excellent project is to start with a professional research publication—either one discussed in class or one published in a journal or book—and apply the idea to a body of data. Replication of an existing study is acceptable, but some extension would be even better—to a new industry, new specification, or new body of data. Your project does not have to be based on an original research idea (but if it is, all the better).

Your project must focus on a scientific question; it cannot be merely descriptive. Examples of scientific questions include: How much market power is there in a particular industry (measured by the ratio of price to marginal cost)? Is the relation of market power to the number of sellers in accord with the Cournot model? What is the elasticity of labor supply with respect to the wage? What is the coefficient of relative risk aversion of the typical consumer? The scientific question can have a clear policy application—for example, what is the effect of the minimum wage on teenage employment?

Starting around the third week of the quarter, I will meet with individuals or groups to develop and guide your projects. We will have presentations in class of projects in late May. The project is due in the my office on Tuesday, June 3, at 2 pm. Late projects will be marked down at a rate of 0.3 grade points per day (on a scale of 4). If you fall behind, turn in your best incomplete effort. Better, get to work sooner.

If you work in a group, you will be responsible for the free riding of other group members. Grading will set a higher standard for a larger group. Nonetheless, work in groups is encouraged and has generally worked well in 103 in the past.

Course grade

The grade will be based 20 percent on the problem sets, 30 percent on the initial presentation, and 50 percent on the project and class participation.

Students with documented disabilities

Students who have a physical, psychological, or learning disability that may necessitate an academic accommodation or the use of auxiliary aids and services in a class **must initiate the request with the Disability Resource Center (DRC)**, not with the instructor. The DRC 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. Students should contact the DRC as soon as possible as timely notice is needed to arrange for appropriate accommodations. The DRC is located at 563 Salvatierra Walk.