**University of California, San Diego**
**Department of Economics**
**Fall Quarter 2006**

# ECON 120C: ECONOMETRICS C

Professor Magdalena Sokalska
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Office, Economics Bld. Room # 111
Office hours: Mon 3:30-4:30pm
Course webpage at webct.ucsd.edu
Lectures: MWF 12-12:50

## COURSE DESCRIPTION

Econ 120C is a sequel to Econ 120A and Econ 120B. The objective of the course is to provide you with knowledge of econometrics in theory and applications. At the end of the course, students should be able to apply fundamental econometric methods to analyze real-life economic relations.

## REQUIRED TEXTBOOK

James Stock and Mark Watson, *Introduction to Econometrics*, (Addison Wesley 2003).

## ADDITIONAL MATERIAL (for your reference only)

Brooks, C. *Introductory Econometrics for Finance*, Cambridge University Press, 2002. Selected chapters may be useful for background introductory reading for inquisitive students.

Wooldridge, J., *Introductory Econometrics*, Southwestern, 2002. For more mathematically inclined students.

## REQUIRED SOFTWARE

The software for this course is STATA (www.stata.com). Students can use STATA in the computer laboratory in Econ 100.

## GRADING

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|---|---|
| Midterm1 | 25% |
| Homework | 10% |
| Midterm2 (cumulative) | 25% |
| Final (cumulative) | 40% |

Homework will not be graded; you will get credit by just handing it in. Homework may be handwritten. Each person is required to hand in a separate paper, although the results may come from group work. Short outlines of solutions will be provided at the course's website.

The midterms will take place during lecture time on Monday Oct, 16 and Monday Nov, 6 (Exact dates subject to confirmation). There will be no makeup exams. If you miss the midterm for a medical or

another university approved reason, the weight will be allocated to the remaining exams. Final exam is cumulative but bigger emphasis will be placed on the material covered in later sections.

All exams will be closed book, but you are allowed to bring one hand-written formula page. Photo reducing is not permitted. The page may not be larger than 8.5in by 11in but can be two-sided. You may bring a calculator.

TEACHING ASSISTANTS

| Name | E-mail | Location | Office hours |
|---|---|---|---|
| Gillen, Benjamin | bgillen@ucsd.edu | Economics 123 | TBA |
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COURSE OUTLINE

*PART I: Introduction and Review*

Types of data, Properties of OLS.
(Lecture notes)

*PART II: Basic Time Series Analysis*

(SW 12.1-12.5, SW App. 12.1-12.4, 13.3-13.5)
Introduction to time series data: autocovariance and autocorrelation
Stationarity
AR(p) model: estimation and forecasting
Maximum likelihood estimation, introduction
MA(q) model: estimation and forecasting
ADL(p,q) model: estimation and forecasting
Regression with autocorrelated errors: HAC standard errors

*PART III: Nonlinear and Discrete Choice Models*

(SW 6 and 9)
Polynomial and logarithmic regression model
Interactions between independent variables
Linear probability model
Maximum likelihood estimation, cont.
Probit (and Logit – time permitting)

*PART IV: IV estimation and Panel regression*

(SW 10 and 8)
Failure of the OLS estimation and the IV estimation
Panel data regression: fixed effects and time effects

**Final exam**

12/07/2006 Th 11:30a - 2:29p Location: TBA