Financial Econometrics (29:390:300:63) **Fall 2011**
Class meets Thursdays 6:00-9:00 PM, 1 Washington Park 308

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Thursdays 5:00-6:00 P.M., and by appointment.

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This course presents an overview of short-term and long-term financial analysis, planning, and forecasting. Regression and other statistical techniques are developed and illustrated in alternative financial planning and forecasting analyses.

Prerequisites: This course is a Finance core requirement for students that have not taken Introduction to Econometrics already. Students who are double majors in Finance and Economics can take Introduction to Econometrics (220:322). School 29 courses at the 300 level and higher are for Rutgers Business School: Undergraduate-Newark Students only. All RBS majors must complete the following courses prior to taking any upper level Business Courses:

350:101_____	English Composition I	350:102_____	English Composition II
220:101_____	Intro to Econ-Micro	220:102_____	Intro to Econ-Macro
220:231_____	Statistical Methods or	960:211_____	Statistics
010:203_____	Financial Accounting	010:204_____	Managerial Accounting
640:119_____	Basic Calculus		

References

Course handouts will serve as your primary reference. The texts you used in statistics and in finance should be useful references. Students should pursue supplements that best help them learn the course material. I recommend at least one of the first three of the following references.

(1) *Introductory econometrics for finance*, 2nd Edition, by Chris Brooks, Cambridge University Press, 2008.

(2) *Statistics for Business and Financial Economics*, 2nd Edition, by C.F. Lee, J.C. Lee, and J.A. Lee, World Scientific, 2000.

(3) *Econometric Models and Economic Forecasts*, Fourth Edition, Robert S. Pindyck and Daniel L. Rubinfeld, Irwin/McGraw-Hill, 1998.

Other potentially useful references.
(4) An introduction to finance, such as *Financial Management and Policy*, 11th Edition, James C. Van Horne, Prentice Hall, 1998, or *Financial Analysis and Planning,* Cheng-few Lee, Addison Wesley Publishing Company, 1985.

(5) *Business and Financial Statistics Using Minitab 12 and Microsoft Excel 97*, by J.C. Lee, World Scientific, 2000.

Computer Programs: Microsoft Excel is the minimum software requirement for the course. However, more advanced software, such as EViews, STATA, or SAS, will facilitate relatively efficient estimation.

Grading Policy:

Quizzes	50%
Project (written and oral presentation)	50%

Class attendance is required. Quizzes will not be announced in advance and there will be no make up quizzes given. Each student's lowest 1/3 of quiz scores will be dropped.
Academic integrity: http://academicintegrity.rutgers.edu/

Course Outline:
(Topics are tentative and may vary according to class interests and time constraints.)

1. Introduction

2. Statistical Analysis of Financial and Accounting Data

3. Linear Regression Analysis
   - OLS estimation
   - Hypothesis Testing
   - Goodness-of-fit

4. Fundamentals of Forecasting
   - Roles and conditions of forecasting
   - Explanatory versus time-series forecasting
   - Accuracy of forecasting
   - Descriptive Statistics
   - Selection of forecasting models
   - Forecasting Technique

5. Simulation models for financial planning
   - The simulation process

Evaluating simulation models
Model estimation

6. Time-series models
   Smoothing and extrapolation
   Seasonal adjustment
   Stochastic time-series
   The autocorrelation function
   Random Walks
   AR, MA, ARMA, and ARIMA models

7. Estimating and Forecasting with time-series models
   Forecast error
   Minimum mean-square-error forecasts
   Diagnostic checking

8. Applications of regression and/or time-series models and simulation in finance.

Web Pages (there are many of potential interest, here are a few examples)
http://libguides.rutgers.edu/business
http://www.economist.com
http://www.FT.com
http://online.wsj.com/public/us
http://econwpa.wustl.edu/econFAQ/EconFAQ.html
http://www.lancs.ac.uk/users/mansch/manageme/research/forecast.html
http://lib.stat.cmu.edu
http://www.lib.umich.edu/govdocs/stecon.html
http://www.federalreserve.gov/
http://fisher.osu.edu/fin/fdf/osudata.htm
http://www.rba.co.uk/sources/stats.htm
http://www.bea.gov/
http://www.treasurydirect.gov/govt/govt.htm
http://www.economagic.com/
http://www.oswego.edu/~economic/econsoftware.htm
http://www.forecastingprinciples.com/dictionary/defined%20terms.html
http://cameron.econ.ucdavis.edu/excel/excel.html (provides excel instructions for regression analysis, among other things)