ECON 423

Syllabus

Instructor:

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Classroom:

<u>Text:</u> <u>Office Hours:</u> <u>Data and course information available at</u> Course Prerequisites:

MP008 every Monday ECS333 every Wednesday Su, Vincent, Economic Fluctuations and Forecasting, 1996. Monday/Wednesday 2:00-3:30 http://www.umbc.edu/~humphrey/econ423.htm ECON 312, STAT 351/355

Course Description

Study of the application of economic statistics to forecasting problems. Topics covered include analysis of cross-section and time series data, use of published economic indicator series, and forecasting methodology.

This course will make extensive use of computer applications including spreadsheet programs and statistical/econometric packages. The course will also utilize the Internet as a primary source of economic data. Because the course will stress the location, manipulation, and analysis of economic data, *some familiarity with (or recollection of) the material covered in STAT 351/355 is assumed.* Students with a limited recollection of the basic material covered in STAT 351/355 may find this course difficult.

Objectives and Expectations

The primary goal of this course is to provide students with experience in locating, manipulating and analyzing economic data. This data identification, collection, manipulation and analysis will be carried out in the context of understanding and forecasting business cycles in the U.S. economy. Because the course includes elements of a "lab" course and is not solely a "lecture" course, emphasis will be given to the acquisition of certain skills like the construction of spreadsheets and formulas, the use of Web browsers, and the calculation of sample statistics and the estimation of unknown parameters in linear regressions.

After completing the course, students will be able to quickly locate economic data on the internet, transform these data into a form that can be analyzed statistically and econometrically, manipulate these data using a spreadsheet or statistical analysis program, analyze these data, and discuss the results in the context of economic theory.

This course will also stress written and oral communication skills. The problem sets will be prepared in a specific format using both spreadsheet and wordprocessing software; the group project will include an oral presentation given during the final exam period. The Reserve Reading Summaries will involve writing several short essays.

This course requires more work than a typical "lecture" course because of the focus on learning specific computer skills and manipulating and analyzing economic data. These skills cannot be learned by passively listening to a lecture, memorizing a set of facts and

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regurgitating them on a one-hour exam (or two-hour final). They can only be learned and mastered by placing yourself firmly and frequently in front of a computer and using it. This is hard and often frustrating work.

Although most students are familiar with the "three times" rule of thumb ("for each hour spent in class a student should spend three hours outside class studying") few seem to take this advice seriously. In this course, the "three times" rule of thumb will hold in each week. In order to pass the course, you should expect to spend between 7 and 8 hours per week outside class working on the class material. If you are not willing or able to make this time commitment, you should consider dropping this course. If you are interested in learning and honing important skills that will help you to get and keep a good job, you should consider making this time investment.

Course Outline

1. Introduction	Chapter 1
2. Review of Statistics and Linear Regression, with Applications Week $1\text{-}2$	Chapter 6
3. Economic Data Week 3-4	Chapters 2-4
(a) Types of Economic Data	
(b) Sources of Economic Data	
(c) Spreadsheet Basics	
4. Economic Forecasting	
(a) Naive Methods Week 5	Chapter 10
(b) Single Equation Methods Week 6	Chapter 10
(c) Noneconomic Forecasts Week 7	Chapter 11
(d) Evaluating Economic Forecasts Week 8	Chapter 16
5. Review of Macroeconomic Theory Week 9-10	Chapter 5
6. Business Cycles	
(a) The Historical Record of Business Cycles in the U.S. Economy Week 11-12	Chapter 7-8
(b) Applications: Simulation Methods Week 13-14	Chapter 9
Grading	
Problem Sets, 10 @ 100 points per problem set (1000 points)	50%
Group Project (1000 pts.)	50%

About the Problem Sets

There are 10 problem sets, which are listed on the last page of the Syllabus. The problem sets will generally be composed of two parts: computations and data manipulation which will be done in a spreadsheet program, and written answers to short questions about the computations and data manipulation which will be done in a text editor or wordprocessor. All of the problem sets involving spreadsheet manipulation will be submitted electronically, via e-mail.

Students may not work together in groups on the problem sets. Each student must turn in separate answers to the problem sets. If two or more students turn in identical copies of files as answers to any of the problem sets, all of those students will receive a grade of zero on that problem set.

About the Group Project

The Group Project is designed to provide students with some experience working on a long-term and relatively unstructured research project that involves the collection and analysis of economic data. Group members will play the role of Fed staff economists who have been asked to prepare a memo and brief the Federal Open Market Committee (FOMC) about the recent behavior and short-term forecast of a key economic indicator. The FOMC is the decision making committee at the Fed, and memos and briefings are the primary methods of communication between the staff economists at the Fed and the FOMC.

Your grade on the group project will be based on three components: a rough draft of the memo (worth 200 points and due on Wednesday, November 26th), the final draft of the memo (worth 400 points and due on Monday, December 15th) and a 20 minute oral briefing at a mock FOMC meeting (worth 400 points and given on Tuesday, December 17 - in the time period scheduled for the final exam.) You will be given additional details about the group project when the groups are formed; groups will be formed on October 14th.

Problem Sets

- 1. Statistics and Linear Regression
- 2. Estimating Trend Population Growth In the U.S. Economy, 1948-1996
- 3. Spreadsheet Basics: Real Quarterly U.S. Gross Domestic Product
- 4. Forecasting: Naive Methods
- 5. Forecasting: Single Equation Methods
- 6. Forecasting: Evaluating Noneconomic Forecasts
- 7. Appraising Economic Forecasts
- 8. Internet Scavenger Hunt
- 9. The IS/LM Model
- 10. Simulating Macroeconomic Models