

ECONOMICS 112 Forecasting in Business and Economics

Department of Economics, University of California, Riverside, Winter 1997

- **Professor:** Tae-Hwy Lee
- **Lectures:** TR 11:10 a.m. - 12:30 p.m., LIBS 2206
- **Office:** HDHL 209B
- **Office Hours:** W 2 - 4 p.m., or by appointment

Description: The course provides a basic knowledge of forecasting and its applications, particularly by using business and economic data. We explore how recurrent fluctuations in economic activity create an environment of uncertainty, how to reduce the costs of this uncertainty, and how to use available information to forecast future events. We study several basic methods of forecasting, such as regression methods, exponential smoothing algorithms, and ARIMA methods. We also study how to combine and evaluate various forecasts. Some techniques based on cointegration, VAR, and conditional variance forecasting will also be discussed. Computer program *Shazam* will be used.

Textbooks:

- Newbold, Paul and Theodore Bos, *Introductory Business and Economic Forecasting*, 2 ed., South-Western Publishing Co. 1994.
- *Shazam User's Reference Manual*, Version 7.0, McGraw-Hill, 1993.

Grading: Homework problem sets will consist of analytical exercises as well as computer exercises. Late homework will not be considered. No collaboration for homework. The schedule may be subject to change. You are fully responsible for following up all the announcements made during the lectures. Bring a calculator to each exam. All exams are non-redemptive. No make-up exams will be given without legitimate reasons. Make-up tests will be made differently and harder. Any make-up exam should be arranged before the scheduled exam. Final exam is comprehensive. There will be no make-up final exam.

- **Homework** (20%): many times.
- **Exam 1** (20%): January 30, Thursday
- **Exam 2** (30%): February 20, Thursday
- **Final** (30%): to be announced

Outline:

The course outline may be revised during the session.

- Introduction: Chapters 1, 2, 5
- Regression Methods: Chapters 3, 4
- Exponential Smoothing Algorithms: Chapter 6
- ARIMA Methods: Chapter 7
- Combining Forecasts: Chapter 12
- Evaluating Forecasts: Chapter 13
- Extension 1: Chapters 8, 9
- Extension 2: cointegration, conditional variance, and etc. (not from the textbook)