

THE UNIVERSITY OF WISCONSIN-PARKSIDE
Department of Economics

Econ 490 Empirical Macroeconomics (Time-Series Analysis and Forecasting) Summer 2009

Instructor: **Stefan Ruediger**

Course time: TBD 05/18 – 07/11 (8 weeks)

Special attention will be given to students that work full-time

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Final Exam: to be determined

Course Requirements:

Literature:

Grading:

Assignments	40%
Paper	30%
Exam	30%

Goals of the Course:

The goal of this class is to empirically explore the concepts of short-run, medium-run, and long-run macroeconomic analysis. The first objective of this course is to teach students where to find macroeconomic data and how to interpret the data with the help of graphical analysis. The second goal is to introduce techniques of time-series analysis and forecasting. Finally these techniques will be applied to capital and money markets (corporate bond, stocks, T-bills, T-bonds), housing markets, industrial production, and general economic performance (unemployment, inflation, growth). Since the focus of the class is the immediate application of the acquired techniques, the students will also learn how to use Excel and E-Views to perform time-series analysis and forecasting. Depending on the areas of interest of the students introductions to SPSS and SAS will also be given.

Course Outline

1. Introduction to Basic Techniques of Time-Series Analysis and Forecasting
 - a. Correlation
 - b. Autocorrelation
 - c. Partial Autocorrelation
2. Advanced Techniques of Time-Series Analysis and Forecasting
 - a. Unit Roots
 - b. Cointegration
 - c. Vector Autoregression
 - d. Vector Error Correction
 - e. ARCH/GARCH
3. Writing an Paper using Techniques of Time-Series and Forecasting
 - a. Writing a Financial Study
 - b. Writing an Economics Research Paper