University of Pennsylvania  
Economics 221, Spring 2012  
Forecasting in Economics, Business and Government

Instructor: Matthias Kredler  
Office Location: McNeil Building #451  
Office Hours: Monday 4.00-5.00pm

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Office Location: McNeil Building #545  
Office Hours: Tuesday 3.00-5.00pm

Course Web Page  
We will use the blackboard software.

Classes  
Tuesday and Thursday 10.30-11.45am  
Graduate Education Bldg. 008

Course Description  
This course provides a comprehensive introduction to econometric modeling and forecasting in the context of a modern and powerful econometric computing environment.

Prerequisites:  
Statistics and econometrics.

Course Material:  

Software:  
R or EViews. R is public domain and Eviews is installed in the Undergraduate Data Analysis Lab in the McNeil building.

Course Requirements

Homeworks (50%): There will be about 6 homeworks in which students work with real-world data on the computer. They will be due in the beginning of the class.

Class presentations and participation (10%): Students will be asked to present homework exercises to the class. These presentations and general participation in class constitute 10% of the final grade.

Final Exam (40%): To be given on the date and location scheduled in the University calendar for final exams. If a student is excused from the final exam, a make-up final will be scheduled according to the university rules at the beginning of the Fall-2012 Semester.

Course Outline

We will follow the book by Diebold:
1. Introduction to Forecasting: Applications, Methods, Books, Journals, and Software.
   Appendix: The Linear Regression Model.

2. Six Considerations Basic to Successful Forecasting.


4. Modeling and Forecasting Trend.

5. Modeling and Forecasting Seasonality.

6. Characterizing Cycles.


8. Forecasting Cycles.

9. Putting it All Together: A Forecasting Model with Trend, Seasonal, and Cyclical Components.

10. Forecasting with Regression Models.

11. Evaluating and Combining Forecasts.

12. Unit Roots, Stochastic Trends, ARIMA Forecasting Models, and Smoothing.