Econometrics II

Econ 302
Spring 2009

T. Yigit
Office: MA 225
Office Hrs : Wed 10:40 - 12:00
or by appointment.

This course will introduce the models and techniques that accommodate special characteristics of economic data. Problems such as multicollinearity, heteroscedasticity and autocorrelation will be considered. Furthermore, identification and estimation of simultaneous models, models with discrete variables, an introduction to time series analysis will be discussed. (Prerequisite is Econ 301)

Text: Basic Econometrics, by Gujarati, 4th edition **(BE)**
Undergraduate Econometrics by R.C. Hill, W.E. Griffiths,and G.G. Judge, 2nd ed. **(UE)**

Course Requirements and Grading: Your grade for the course will be determined by the scores of two (in class - closed book) midterm exam, project assignments, class participation and a comprehensive final exam. The weights of these are as follows:

Midterm Exam I	25%
Midterm Exam II:	25%
Final Exam:	30%
Quizzes, class participation (Projects):	20%

(THE HOMEWORKS SHOULD BE THEIR ORIGINAL WORK, ANY SIMILARITY BETWEEN HWS WILL RESULT IN DISCIPLINARY ACTION)

All students are expected to be able to use **E-Views** statistical/econometric software package in their empirical analysis of the homework assignments. THERE WILL BE NO MAKE-UP EXAM UNLESS AN ACCEPTABLE FORMAL REASON IS PROVIDED FOR MISSING THE EXAMS NO LATER THAN 3 DAYS FOLLOWING THE EXAM.

Course Outline:

	Week of
1. Review of the EC301Material	**February 9**

ALL STUDENTS SHOULD REVIEW THE MAIN POINTS ON Least Square Estimators, Confidence Interval, Hypothesis Testing, Measure of Goodness of Fit and Restriction Tests (Ch 4,5,6,7, 8, 9, 10, 11, of BE text book)

2. Chow Test **(Ch. 8 of BE and UE-Ch 8)**	**February 16**
3. Maximum Likelihood Estimation (**Ch. 5.4, and in various sections in of BE**)	**February 23**

4. An Autocorrelated Error Model **March 2**,
5. 1 Problem of Autocorrelation
5. 2 GLS Estimation of an Autocorrelated Error Model
5. 3 Testing for Autocorrelated Errors
(**Ch.12 of BE, Ch. 12 of UE**)

5. Econometric Modelling: Specification and Testing **March 9,**
5. 1 Consequences and Detection of errors in specification
5. 2 Selecting the Best Model
(**BE-Ch. 13**) (**UE-Ch 7**)

6. Nonlinear Regression Models: **March 16,**
6. 1 Estimation of Nonlinear regression models
(**BE-Ch. 14**)

7. Qualitative Response Models **March 23**
7.1 Linear Probability Models
7.2 Logit, Tobit and Probit
(**BE-Ch. 15)**

8. Simultaneous Equation Models **March 30**
(**BE-Ch. 18)**
8. 1 Identification, (**BE-Ch. 19)**
8. 2 Estimation, (**BE-Ch. 20)**

9. Time Series Econometrics **April 6, 13**
8. 1 Stationary and Non-stationary stochastic processes
8. 2 Non-stationarity and classical models
8. 3 Error correction models
(**Ch. 21 of BE, Ch. 16 of UE**)

9. Testing for stationarity **May 4**
9.1 Statistical Tests for Nonstationarity
9.2 Deterministic versus Stochastic Trends
9.3 Cointegration
(**Ch.22 of BE, Ch. 8 of UE**)

10. Time Series Econometrics, Forecasting (**Ch.23 of BE)** **May 11**
10.1 AR, MA, ARIMA
10.1 Box-Jenkins

11. Review