

UNIVERSITY OF ILLINOIS
Department of Economics

Course: ECON 503 (MSPE), Spring 2021

January 26, 2021

Instructor: Anil K. Bera
Office Hours: 12:30-1:30 pm TR

Class Hours: 9:30-10:50 am TR
11:00-12:20 pm TR

TA: Prakrati Thakur
Office Hours: 8:00-9:00 am MW; 7:00-8:00 pm TR

Discussion Hours: 9:00-10:20 am F



This is an introductory course in Econometrics. We will start with some real economic problems, for example, in consumption analysis, production economics, education-wage relationship and stock market behavior, and then we will look for some econometric techniques to solve them.

The emphasis of the course will be on the *econometric methodologies* that we can apply. We will cover the following topics:

1. Introduction: Art of Econometric Modeling
2. Simple Regression Analysis
3. Ordinary Least Squares (OLS) and Maximum Likelihood (ML) Estimation Methods
4. Hypothesis Testing with the Simple Regression Model
5. Forecasting with the Simple Regression Model
6. Matrix Algebra
7. Multiple Regression Analysis
8. Hypothesis Testing with the Multiple Regression Model
9. Nonnormal Disturbances
10. Heteroskedasticity
11. Autocorrelation and Time Series Analysis
12. Spatial Data Analysis

Textbook:

Introduction to Econometrics, by James H. Stock and Mark W. Watson, 2nd Edition, 2007, Pearson Addison Wesley.

I will not, however, follow this book closely, but will try to give detailed lecture notes.

Background Reading (without Matrix Algebra):

Applied Econometrics, by Dimitrios Asterion and Stephen Hall, 3rd Edition, 2016, Palgrave.

The evaluation of the course will be based on two exams: **a midterm (25%)** and **a final (25%)**, and **an applied project (50%): (15%) for proposal due on March 31 and (35%) for the term paper.**

Surprize! You can get A in this course by active class participation which we will discuss in class.