

UNIVERSITY OF ILLINOIS
Department of Economics

Course: ECON 503 (MSPE), Spring 2019

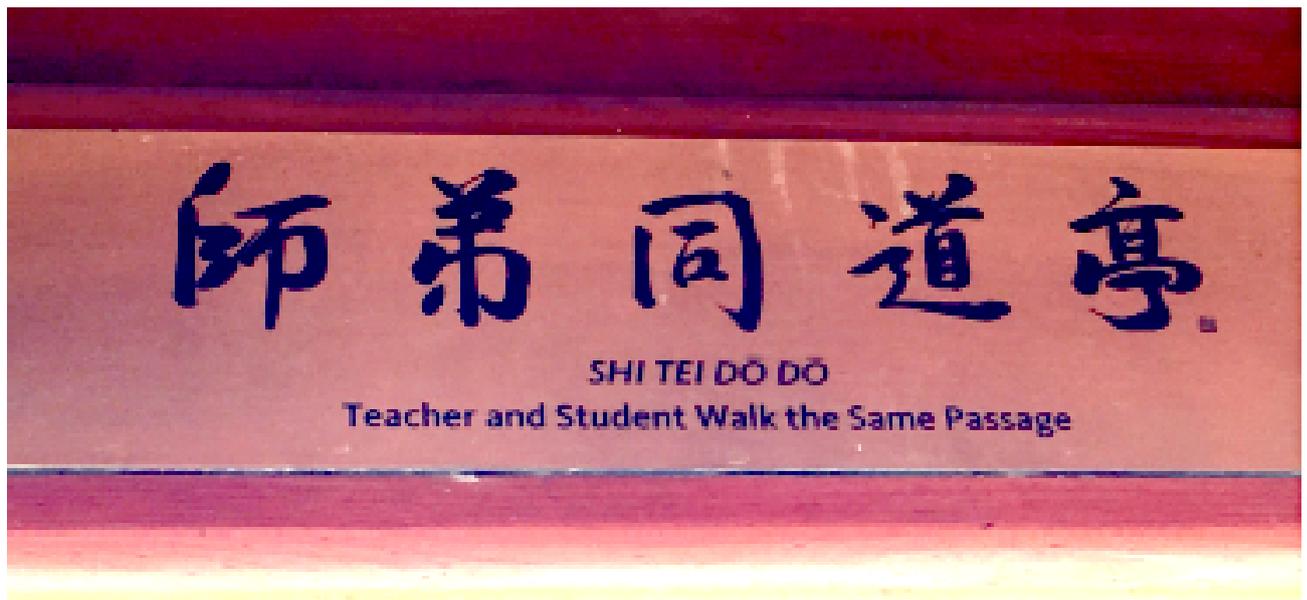
January 15, 2019

Instructor: Anil K. Bera, 225E DKH
Office Hours: 12:30-1:30 pm TR

Class Hours: 9:30-10:50 TR
11:00-12:20 TR
Class Room: 317 DKH

TA (M1): Prakrati Thakur, 110 DKH
TA (M2): Lucas Chagas, 110 DKH

Discussion Hours: 9:00-10:20 F
Discussion Hours: 10:30-11:50 F
Class Room: 317 DKH



Prologue

April, 1242
Baghdad, Iraq

Baghdad took no note of the arrival of Shams (Sun) of Tabriz, a wondering Sufi Saint, from Samarkand to the city's famous Dervish Lodge. Shams told the master of the lodge, Baba Zaman, that he wanted to share his accumulated knowledge to the most competent student. Why? Because, Shams said, "Knowledge is like brackish water at the bottom of an old vase unless it flows somewhere." Baba Zaman got serious and asked a bizarre question: "You say you are ready to deliver all your knowledge to another person. You want to hold the Truth in your palm as if it were a precious pearl and offer it to someone special. That is no small task for a human being. Are not you asking too much! What are you willing to pay in return?"

Raising an eyebrow, Shams of Tabriz said firmly, "I am willing to give my head."

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.**

Epilogue

In late October of 1244 in Konya, Turkey, Shams found the student he was looking for: Jalaluddin Rumi, already a famous Islamic scholar in Turkey. Under the tutelage of Shams, Rumi became one of the most revered poets in the world, as Rumi said,

“I was raw. I was cooked. I was burned.”

March 1248
Konya, Turkey

Rumi's son Aladdin hired a killer who did not require much convincing. It was a windy night, unusually chilly for this time of the year. A few nocturnal animals hooted and howled from afar. The killer was waiting. Shams of Tabriz came out of the house holding an oil lamp in his hand and walked in the direction of the killer and stopped only a few steps away from the bush where the killer was hiding.

"It is a lovely night, isn't it?" Shams asked.

Did he know the killer was there? Soon six others joined the killer. The seven of them knocked Shams to the ground, and the killer pulled his dagger out of his belt...

Together they lifted Shams' body which was strangely light, and dumped him into a well. Gasping loudly for air, each of them took a step back and waited to hear the sound of Shams' body hitting the water.

It never came.

Taken from: Elif Shafak (2010), *The Forty Rules of Love*, Penguin Books.

About me: Anil K. Bera

My family name stands for:

Business Economics Research Advisor (BERA).

However, my family history goes back to Biblical times: (Genesis 14:2) “ That these made war with Bera king of Sodom, and with Birsha king of Gomorrah...” Naturally, I am not at all proud of this.

I also have solid business experience - “run” an Internet Kafe in Turkey (below). I wanted to have my email address as @nil@uiuc.edu, but unfortunately, the university didn’t allow it. I also run a hotel (below) in Ankara, capital of Turkey.

What about AB? These are first two English letters. Also, think of first two alphabets in Arabic: *alif* and *ba*. There is a . (dot) below *ba*, which embodies the entire universe:

ب

Finally, the line below is from *Bera’s Bible*:

(Matthew 19:26): “But Jesus beheld them, and said unto them: With professors this is impossible, but with Students all things are possible.”

