## Econometric Theory and Practice (Econ 482) Winter 2020, University of Washington

Instructor: Chang-Jin Kim (Office: Savery Hall 353)

Class Hours: T, Th. 3:30:-5:20PM (MGH 231)

Office Hours: T, Th 10:30-11:20AM

TA Office Hour (Seungryul Jeong, Savery Hall 319H): Wed 2:00-3:00 PM

#### Useful Textbook:

\*\* Introductory Econometrics, by Jeffrey M. Wooldridge.

**Prerequisites**: Minimum grade of 2.0 in ECON 300, either ECON 311/STAT 311, MATH 390/STAT 390, or Q SCI 381.

### Course Description

This course deals with theory and applications of statistical modeling to empirical work in economics; Focuses on regression analysis; derivations of regression estimators and their properties; and applied computer work in estimating multiple regression models.

#### Grades:

Grades will be assigned on the basis of you performance on three Exams: Two midterm exams (Jan 28, (Tue), Feb 20 (Th)) (approximately 20 % each) and final exam (Mar 12, (Th)) (at least 40 45%) and a series of assignments (approximately 15 20%). All the exams are accumulative.

#### Important Notes:

Computer softwares to be used for the course is the 'R' Programming Language.

#### Course Outline:

\* Review of Basic Statistical Concepts

Random Experiment, Sample Space, Random Variable, Population, Sample

- \* The Principle of the Ordinary Least Squares Method
- \* The Principle of Hypothesis Testing
- \* Multiple Regression Analysis

Model set up and estimation Hypothesis testing

- $\ ^{*}$  IV (Instrumental Variables) Estimation
- \* Generalized Least Squares (GLS)

Heteroscedasticity Autocorrelation

# POLICY

- 1. No make-up examinations
- 2. No questions using email
- 3. no exceptions