



Korea University International Summer Campus (KU ISC) 2023

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June 27, 2023 ~ August 3, 2023

ISC320A – Econometrics

I . Instructor

Professor	:	Sung K. Ahn
E-mail	:	ahnskeuk@yahoo.com
Home Institution	:	Washington State University
Class Time	:	9:00 a.m. – 10:40 a.m.
Office	:	TBA
Office Hours	:	TBA

II. Textbook

Required Textbook	:	Essentials of Econometrics, 4th Ed. by Damodar N. Gujarati and Dawn C. Porter, McGraw-Hill/Irwin, 2010, ISBN 978-0-07-337584-7.
Recommended Additional Readings	:	

III. Course Description and Objectives

ISC 320 is an introductory course in Econometrics which is a core course in economics and introduces the student to the science and art of building and using statistical models in the context of economic analysis and forecasting. The focus is on understanding the fundamental theory underlying regression methods (including estimation, hypothesis testing, and prediction) and learning how to appropriately apply these techniques in the analysis of economic data.

The overall teaching goals are to help the students build a strong foundation of knowledge in the basic principles of econometrics and to help the students develop critical thinking and problem solving skills in applying these quantitative principles in future scenarios.

Prerequisites: Introductory Statistics; Introductory Microeconomics; Introductory Macroeconomics

IV. Grading

Midterm Exam	:	40%
Final Exam	:	40%
Assignments	:	15%
Participation	:	5%

The letter grade of the course will be assigned in accordance with the KU-ISC grading guide lines.

Class Attendance and Participation

Class attendance and participation is required. The students will be graded on attendance and involvement in discussions during class. The students are expected to be prepared for class and to keep up with the materials as the class progresses.

Assignments

Homework problems are regularly assigned during class and due at the beginning of the following class. The statistical software R[®] will be used, when necessary, Excel will be used occasionally. Late assignments will not be accepted nor be graded.

Examinations

There will be exams given in class on **Thursday, July 13** and **Tuesday, August 1**. The format and contents of the exams will be announced a few days prior to the exams.

Classroom Expectations and Policies

Be a positive contributing member of the class – our class sessions will be a combination of lecture, discussion, and hands on activities. You are expected to participate in a manner that will facilitate your learning as well as the learning of your classmates. Mutual respect and collaborative effort are essential, especially under the on-line learning environment, and will be expected at all times. Also, attendance and active participation are expectations that will be documented and credited. If you miss class, it is your responsibility to find out what you missed.

V . Class Outline

Date	Topic	Chapter	Remarks
June 27 (Tue)	Orientation Day		
June 28 (Wed)	Introduction and review of basic concepts	0	
June 29 (Thu)	Simple linear regression model	1, 2	
June 30 (Fri)	Ordinary least squares and Assumptions	2, 3	
July 3 (Mon)	Properties of OLS	3	
July 4 (Tue)	Statistical inference	3	
July 5 (Wed)	Normality tests, Prediction	3	
July 6 (Thu)	Examples	3	
July 10 (Mon)	Multiple regression model	4	
July 11 (Tue)	Inference about the model	4	
July 12 (Wed)	Review for the mid-term exam	1-4	
July 13 (Thu)	Mid-term Exam	1-4	
July 17 (Mon)	Partial F-test	4	
July 18 (Tue)	Variable transformation	5	
July 19 (Wed)	Dummy variables	6	
July 20 (Thu)	Logistic regression	12	
July 24 (Mon)	Model specification	7	
July 25 (Tue)	Multicolliniarity	8	

July 26 (Wed)	Heteroskedasticity	9	
July 27 (Thu)	Auto-correlations, Autoregressive models	10	
July 31 (Mon)	Distributed lag models, Review for the final exam	12, 4-10	
Aug 1 (Tue)	Final Exam	4-10	
Aug 2 (Wed)	Preview of Advanced Econometrics	13	
Aug 3 (Thu)	/ Graduation Day (Available both Online / Offline)		