

Course Title	Applied Econometrics
Course Code	Eco-326
Pre-Requisite	Eco-325
Degree Program (BS / MS / PhD)	BS

Course Objectives

1. Provide students with experience in analyzing **cross sectional, panel** and **time series** data.
2. Make students aware of some of the pitfalls and problems that arise in applied work.
3. Make students aware of guidelines for using econometric models and tools effectively.

Assist students to become better at evaluating the econometric research of others

Learning Outcomes

At the end of this course students will be able to apply basic econometric techniques to empirical

settings, particularly regarding labor economics and consumer demand. In particular, students will

be able to:

1. interpret and perform linear and non-linear regression analysis
2. understand regression analysis with panel data, with binary dependent variables and with instrumental variables
3. apply the techniques learnt to the economic context
4. use of STATA software to perform econometric analysis

Contents

Week	Topic
1	Introduction of STATA, importing data, labeling values, labelling variables, creating, do files, Log files, dta. files, SMCL files, graphs, Descriptive statistics, Contingency tables,
2	Revision of Multiple Linear Regression Models
3	Dummy Variable as an Alternative to Chow Test, Interaction Dummy

	Variables
4	Seasonal Dummy Variables, Piece-Wise Regression
5	Linear Probability Model , Problems of Linear Probability Model, Logit Model & Probit Model
6	Panel Data Regression Models The Fixed-Effect Models & The Random-Effect Models, The Hausman Test
7	Introduction to Time Series , Stochastic processes, Stationary & Non-Stationary processes
8	Purely random processes, Random walk models
9	Mid-term
10	Deterministic and stochastic trends, Unit root tests, Transforming Non-Stationary Time Series
11	Integrated variables, Co-Integration, Testing for Co-Integration
12	Engle–Granger (EG) or Augmented Engle–Granger (AEG) Test, Co-Integrating Regression Durbin–Watson (CRDW) Test
13	Co-Integration and Error Correction Mechanism (ECM) AR, MA, And ARMA Modelling of Time Series Data
14	Identification in Two-Equation System
15	Estimation by 2SLS
16	Estimation of Distributed Lag Models The Kyock Approach to Distributed Lag Models
17	Estimation of Autoregressive Models , The Method of Instrumental Variables
18	Final Examination

Readings List (including Books, Journals, Papers Articles, & Websites whatever is applicable)

1. Damodar, N. Gujarati.() *Econometrics by Example* New York: Palgrave Macmillan.
2. Asteriou, D., & Hall, S. G. (2007). *Applied Econometrics*. New York: Palgrave Macmillan.
3. Wooldrige, J. M. (2009). *Introductory Econometrics- A Modern Approach* (3rd ed.). South-Western Cengage Learning.