ACC 22113: Introductory Econometrics

Level: 2000 **Number of Credits :** 03

Course Description

Econometrics is widely used in conducting empirical studies in finance. This course provides the basic knowledge on econometric models, tools and techniques required to conduct empirical studies in finance.

Intended Learning Outcomes

At the end of this course, the student will be able to,

- Explain types and sources of data and how to use them in econometric analysis.
- Design and estimate empirical models in finance using statistical software.
- Apply regression techniques for testing hypotheses relating to finance
- Interpret and explain estimated parameters and relationships.

Teaching/Learning Methods

Lectures, Group discussions, Practical sessions

Methods of Assessment

In-course Assessments	: 30%
End Semester Examination	: 70%

Course Contents

1 Introduction to econometrics
Econometric terms, notations, sources and standard types of data, concepts of probability and statistics, overview of econometric software
2 Econometric forecasting
Causal methods, time series methods, qualitative methods
3 Confidence interval and hypothesis testing
Interval estimation, hypothesis testing, p-value, one-tail test, two-tail test
4 Comparison of means
One sample test, independent sample test
5 Analysis of variance
Application and diagnostics
6 Correlation analysis
Coefficient of correlation, probabilistic independence, rank correlation, correlation versus causation, correlation matrices
7 Regression fundamentals
Regression versus causation, regression versus correlation, statistical vs. deterministic relationship, population regression function, simple regression and multiple regression

Recommended Readings

1 Wooldridge, Jeffrey M. (2015),Introductory Econometrics: A Modern Approach, 6/e South-Western College Pub
2 Hill, R. Carter, Griffiths, William E. (2011), Principles of Econometrics, 4/e, Wiley