COURSE CONTENT

Course Coordinator       Wang Wei Siang
Course Code              HE2005
Course Title             Principles of Econometrics
Pre-requisites          HE1005 Introduction to Probability and Statistical Inference or
                        At least an A- in HE1004 Introduction to Statistical Theory and Methods
For MAEC students
                        MAS215 Probability & Statistics I or
                        MTH214/MH2500 - Probability & Introduction to Statistics or
                        Co-requisite with MH2500 Probability & Introduction to Statistics or
                        Co-requisite with MAS315 / MTH351 / MH3500 - Probability and
                        Statistics II
No of AUs                3 AU
Contact Hours            39 hours (2 hours lecture and 1 hour tutorial per week)

Course Aims
This course offers students in economics and mathematics a firm foundation in the theory and methods of econometrics. The course teaches you the main tools of estimation and inference. Applications of econometric techniques will be illustrated by empirical examples based on economic analysis. In addition, further topics such as goodness-of-fit, prediction, dummy variables, heteroskedasticity, functional form misspecification, time series data will be discussed.

Intended Learning Outcomes (ILO)
By the end of this course, the students would be able to:

1. differentiate three types of economic data structures
2. explain the statistical properties of OLS estimators
3. illustrate the classical linear regression model and its assumptions
4. modify and propose a suitable model when the classical assumptions are violated
5. formulate regression models and interpret empirical results
6. collect and summarize economic data

Course Content
1. The Nature Of Econometrics And Economics Data
2. The Simple Regression Model
3. Multiple Regression Analysis: Estimation
4. Multiple Regression Analysis: Inference
5. Multiple Regression Analysis: Ols Asymptotics
6. Multiple Regression Analysis: Further Issues
7. Multiple Regression Analysis With Qualitative Information: Binary (Or Dummy ) Variables
8. Heteroskedasticity
9. More On Specification And Data Issues
Assessment (includes both continuous and summative assessment)
1. Quizzes : 15%
2. Problem Set : 15%
3. Participation/Presentation : 10%
4. Final Examination : 60%
Total : 100%

Reading and References

Main Textbook

Supplementary readings

Course Instructors

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Office Location</th>
<th>Phone</th>
<th>Email</th>
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<tbody>
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Planned Weekly Schedule

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