MICROECONOMICS BUSINESS MANAGEMENT - COURSE OUTLINE - THAILAND

1. GENERAL

SCHOOL	ECONOMIC SCIENCES		
DEPARTMENT	ECONOMICS		
LEVEL OF STUDY	*Postgraduate*		
COURSE UNIT CODE		**SEMESTER**	2nd
COURSE TITLE	ECONOMIC AND BUSINESS FORECASTING		

COURSEWORK BREAKDOWN	**TEACHING WEEKLY HOURS**	**ECTS Credits**
Lectures	2	5

COURSE UNIT TYPE	Compulsory
PREREQUISITES	NO
LANGUAGE OF INSTRUCTION/EXAMS:	English
COURSE DELIVERED TO ERASMUS STUDENTS	NO
MODULE WEB PAGE (URL)	

2. LEARNING OUTCOMES

Learning Outcomes
Effective economic and business forecasting is one of the most fundamental skills one can acquire within the disciplines of economics, business or even finance. In particular, the development of quantitative forecasting methods has been expansive over recent decades and has therefore become foundational to work in these domains. Even for those inclined to qualitative forecasting methods, the idea of back-testing your conclusions with comparison to quantitatively derived forecasts makes for a robust protocol. Accordingly, this course will provide a thorough and contemporary review of the dominant protocols used both in qualitative forecasting, but also, on the impressive array of statistical and regression-based approaches. From time-series to “R”, to Bayesian and beyond, there is a robust set of protocols to select from, along with important reasons to understand how to choose the “right tool” for the task at hand. (These

protocols are described more exhaustively in the “course contents” section below.)

General Skills

As a premise a basic mastery of graduate level math is a foundational skill one will need, as well as mastery of undergraduate level of econometric coursework.

However, this course will be uniquely rich in “skills acquisition”, meaning not only will the conceptual part of the syllabus be robust, but in particular the statistics software and econometrics software both introduced in class and used in problem sets will be extensive. Over the weeks of the class all students will acquire basic familiarity as well as a comfort level in using them.

A sampling of Statistics and Econometrics Software introduced during the course follows:

1. Eviews 11
2. R-Projects
3. Python
4. Stata Software
6. OxMetrics
7. WinRATS 6.20
8. S Plus 8.1
9. MATLAB

3. COURSE CONTENTS

Following is an outline of the protocols taught and used within class sessions and problem sets. It represents and expansive survey of the state of economic planning “best-practices.” The emphasis will be on quantitative forecasting, not only because this benefitted from the greatest amount of contemporary research and development,

but also because at times qualitative methodologies tend to be context specific.

1. Quantitative Forecasting in Economics and Business

1.1Time Series Concept
- Univariate Time Series
- Multivariate Time series

1.2 Stationary and Non-stationary
1.3 Long Memory Time series
1.4 Forecasting Method for Stationary Time Series
1.5 Forecasting Method for Non-Stationary Time Series
1.6 Forecasting Method for Long Memory Time Series
1.7 Forecasting with Nonlinear Time Series Models
2. Co-integration Analysis
2.1 Co-integration Analysis
2.2 Panel Co-integration Analysis
3. Forecasting with Extreme value analysis
4. Special topics in Advanced Forecasting Methods
5. Bayesian forecasting method
6. Big data and Machine Learning Model for prediction
7. Nowcasting approach

8. Qualitative Forecasting in Economics and Business
8.1 Delphi Method
8.2 Market Research
8.3 Product Life-Cycle Analogy
8.4 Expert Judgment

4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	online
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Dynamic powerpoint transparencies e-class support Communication via e-mail and course discussion group

TEACHING METHODS	*Method description*	*Semester Workload*
	lectures	26
	Individual Assignments	34
	Self study	65
	Course total (25 hours of work load per credit)	***125***
ASSESSMENT METHODS	Mid-term examination (30%) Individual Assignments (30%) Final examination (40%)	

5. RESOURCES

- Walter Enders and Samuel S.Wilks (2008), **Applied Econometric Time Series Second Edition**, John Wiley & Sons, INC., U.K.
- Zivot and Wang (2006), **Modeling Financial Time Series with S-Plus Second Edition**, Springer Science + Business Media, Inc.
- Plus, specific contemporary research papers as assigned