

COURSE SYLLABUS

First Semester Academic Year 2019

1. Faculty of Economics BA Program in Entrepreneurial Economics
2. Course Code: 01111121 Title: Mathematics for Economists
3. Instructors:
 1. Thanasin Tanompongphandh, Ph.D.
 2. Sorawat Wisalaporn, Ph.D.
4. Office hours

By Appointment only / E-mail addresses: thanasin.t@ku.ac.th (Thanasin)
sorawat_w@hotmail.com (Sorawat)
5. Course Objectives
 - 5.1. To provide students with basic concepts and the essentials of mathematics.
 - 5.2. To enable students to apply mathematical method in making economic decision.
6. Course Description

This course exposes its students of the use of basic mathematical models in analyzing economics problems. It focuses on static analysis, comparative static analysis and optimization problems. In order to comprehend these topics, matrix algebra, differential and integral calculus are necessary mathematical methods and hence the core of this course. Upon completing this course, students will be able to conduct both static and comparative analysis and to solve optimization problems by calculus and mathematical programming.
7. Course Outline
 - 7.1. Introduction to Mathematical Economics Model, Set and functions
 - 7.2. Partial Market Equilibrium & General Market Equilibrium Concepts
 - 7.3. Matrix Algebra & Applications
 - 7.4. The concept of Limit and Derivative
 - 7.5. Rules of Differentiation and their use in Comparative Statics
 - 7.6. Total Differentials and Total Derivatives
 - 7.7. Optimizations: First and Second order conditions
 - 7.8. Exponential and Logarithmic Functions
 - 7.9. Optimization with more than one choice variables
 - 7.10. Optimization with Equality Constraints
8. Student-Centered Teaching Methods

Lecture and exercise

9. Teaching Aids/Materials

TBA

10. Measures of Achievement

	Percent
• Homework and participation	20
• Midterm examination	40
• Final examination	40
Total	100

11. Textbook

Chiang, Alpha C. and Kavin Wainright. Fundamental Method of Mathematical Economics. McGraw Hill, 2005.

12. Class Schedule

Week	Sec 410	Sec 411	Topic	Class Activity	Lecturers	Assigned Reading
1	12-Aug (Holiday)	14-Aug	Introduction to Mathematical Economics Model, Set and functions	Lecture	Thanasin	Ch.1 & 2
2	19-Aug	21-Aug	Partial Market Equilibrium & General Market Equilibrium Concepts	Lecture	Thanasin	Ch.3
3	26-Aug	28-Aug	Matrix Algebra & Applications	Lecture	Thanasin	Ch.4
4	2-Sep	4-Sep	Matrix Algebra & Applications	Lecture	Thanasin	Ch.4&5
5	9-Sep	11-Sep	Matrix Algebra & Applications	Lecture	Thanasin	Ch.5
6	16-Sep	18-Sep	The concept of Limit and Derivative	Lecture		Ch.6
7	23-Sep	25-Sep	Midterm Review	Lecture	Thanasin	
8	TBA		Midterm Exam			
9	7-Oct	9-Oct	Rules of Differentiation and their use in Comparative Statics	Lecture	Sorawat	Ch.7
10	14-Oct (Graduation)	16-Oct	Total Differentials and Total Derivatives	Lecture	Sorawat	Ch.8
11	21-Oct	23-Oct	Optimizations: First and Second order conditions	Lecture	Sorawat	Ch.9
12	28-Oct	30-Oct	Exponential and Logarithmic Functions	Lecture	Sorawat	Ch.10
13	4-Nov	6-Nov	Optimization with more than one choice variables	Lecture	Sorawat	Ch.11
14	11-Nov	13-Nov	Optimization with Equality Constraints	Lecture	Sorawat	Ch.12
15	18-Nov	20-Nov	Optimization with Equality Constraints	Lecture	Sorawat	Ch.12
16	25-Nov	27-Nov				
17	2-Dec	4-Dec	Final Exam Review	Lecture	Sorawat	
17	TBA		Final Exam			

Signature _____
 (Thanasin Tanompongphandh)
 Date August 14, 2019