B.E. International Program

Faculty of Economics, Thammasat University

Course Outline

Mathematics and Statistics for Economists

Semester:	Summer/2012 (June 3 – July 28, 2012)
Instructor:	Dr. Phatta Kirdruang Office: Room 428, Faculty of Economics Office hours: By appointment E-mail: phatta@econ.tu.ac.th
Lecture Time:	Group1 – Tuesday and Thursday, 9.00 - 11.00 hrs. Group2 – Wednesday and Friday, 9.00 - 11.00 hrs.
Lecture Venue:	Room 303, 3rd Floor, Faculty of Economics
Final Examination:	29 July, 2013, 09.00-12.00 hrs.
Prerequisites:	None

Course Description:

This course will intensively review the college-level mathematics and statistics which are indispensable for undergraduate study in economics. Basically, the course comprises of two main parts: mathematics and statistics. The former part includes a number of topics ranging from, set, relation and function, logarithm and exponential, linear models and matrix algebra, limits and basic differential calculus, and integration. The emphasis on mathematics part will be primarily placed at linear algebra and calculus as to reflect their extensive applications in modern economics analysis. Meanwhile, the latter part covers many issues, for example, permutation and combination, basic probability, descriptive statistics and normal distribution.

Reading lists: Course readings will be provided**.**

Requirements and Evaluations:

All students are required to sit in the final exam which will be held on the 29 of July, between 9 and 12 a.m. Students who attain a score of less than 55% are considered as unsatisfactory

Tentative Schedule and Course Outline

Lectures	Topic
1 - 4	**1. Introduction and Elementary Functions** Linear functions, quadratic functions, polynomial functions, exponential functions, and logarithmic functions, concavity. Graphs. Multivariable functions and 3-D graphs. Linear and quadratic equations. Slope and Elasticity.
5-7	**2. Matrices and System of Linear Equations** Matrix operations, determinants , matrix inversion system of linear equations, Cramer's rule.
8-12	**3. Calculus and Integration** Limits and continuity, derivatives, concavity, optimization and integration,
13-16	**4. Probability and Statistics** Sets, union, intersection, complement, basic counting principles, permutations and combinations, sample space, events, probability, conditional probability, mean, variance and covariance, correlation, discrete and continuous distributions
17	**Final Examination** 29 July, 2013, 09.00-12.00 hrs.