

Peking University HSBC Business School

Business Mathematics

2013 Fall - Module 1

Instructor: Kwangwon Ahn, C207, k.ahn@phbs.pku.edu.cn

Class Hours: Tuesday & Friday 8:30-10:20am

Office Hours: Wednesday 8:30-9:30am

Course Aims and Objectives:

Mathematics is the language of modern economics and management, and finance makes extensive use of mathematical tools commonly used in economics and engineering. This course is intended to provide students with an introduction of these tools. This course is for first-year master students in the Economics and Management track, and there is no formal prerequisite. As in most quantitative courses, students with the strongest math backgrounds will breeze through most easily. Mastering the material in this course will make subsequent courses and career easier.

Essential Course Textbooks:

Simon and Blume, "Mathematics for Economists"

Anthony and Biggs, "Mathematics for Economics and Finance: Methods and Modelling"

Prerequisites: No Prerequisite

Course Outline:

Lecture 01, 02, 03 *Introduction: Sets, Series and Functions*
Lecture 04, 05, 06 *Linear Algebra*
Lecture 07, 08, 09 *Calculus I : Single and Multivariate Differentiation*
Lecture 10, 11, 12 *Calculus II : Optimization*
Lecture 13, 14, 15 *Fundamentals of Probability Theory*
Lecture 16, 17, 18 *Introductory Econometrics*

Lecture Notes: <http://econ.kr.gs>

Grading: The course grade will be based on the midterm (50%) and final examinations (50%).

Lecture Hall: C105

Extra Help: Do not hesitate to come to me by appointment to discuss any aspect of the course.