Master (MScE 1D) Master Program:

Title: Mathematics for Economists

Lecturer: Prof. Dr. Jürgen Eichberger

Tutor: Boris Wiesenfarth

Teaching Language: English (or German)

Teaching Method: Lecture and Tutorial (L/T)

Lecture/Tutorial Hours per Week 3L / 2T

Day/Time/Room: L: Thu 14:00-17:00, HS Campus Bergheim

T1: Wed 12:00-14:00, CB 00.010

T2: Thu 10:00-12:00, CB 01.030

Start of Lecture: Thursday, October 13, 2011

General Course Information:

Objectives: The lecture plus the associated tutorials will provide students with the mathematical concepts necessary for dealing with optimisation problems, equation systems, and simple dynamic problems. After completing this course successfully, students will have the necessary prerequisites for reading economic journal articles of moderate mathematical content.

Assessment: 2-hours examination

Course Outline:

- 1. Introduction: Optimisation for Functions of One Variable
- 2. Sets and Functions
- 3. Functions of Several Variables
- 4. Multivariable Constrained Optimisation: Kuhn-Tucker Theorem
- 5. Solutions of Equation Systems
- 6. Dynamic Analysis
- 7. Intertemporal Optimisation

Literature:

SYDSÆTER, K. & HAMMOND, P. (2008). Essential Mathematics for Economic Analysis. 3rd Edition. London: Prentice Hall.

SIMON, C. & BLUME, L. (1994). Mathematics for Economists. New York: Norton.