Pre-Semester Course Static Optimization (2013)

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Course Description: The course is intended for Ph.D. and MSQE students. The objective is to familiarize with basic concepts of unconstrained and constrained static optimization and to apply them to standard economic problems.

Time and Place: The course takes place in the House of Finance Room E.20 (DZ Bank) from September 23 to September 27.

Course Material: Problem sets are distributed in class. Lecture notes and auxiliary materials are available on my homepage (www.damir.stijepic.com/teaching/).

Course Outline:

Monday	$10:15-11:45$	Introduction & Basic Concepts
Monday	$13:00-14:30$	Introduction & Basic Concepts II
Tuesday	$10:30-12:00$	Existence and Uniqueness
Tuesday	$13:00-14:30$	Unconstrained Optimization
Wednesday	$10:30-12:00$	Constrained Optimization I
Wednesday	$13:00-14:30$	Constrained Optimization II
Thursday	$10:30-12:00$	Applications I
Thursday	$13:00-14:30$	Applications II
Friday	$10:30-12:00$	Review
Friday	$13:00-14:30$	Questions and Discussion

Discussion of problem sets as fits; preferably in the afternoon sessions. Concerning the "Questions and Discussion" session (Friday, 13:00 to 14:30), I would like to ask you to send me your questions no later than Thursday 4 pm.

Software: You are encouraged to bring a notebook with standard programming software, e.g. Maple, Mathematica, Matlab or Octave, to class.

Textbook: Standard textbooks include:

De La Fuente, A. (2000): Mathematical Methods and Models for Economists, Cambridge: Cambridge University Press.

Simon, C.P., and L. Blume (1994): Mathematics for Economists, New York: W.W. Norton.

Sundaram, R.J. (1996): A First Course in Optimization Theory, Cambridge University Press, Cambridge, UK.

Chiang, Alpha C. and Kevin Wainwright (2005): Fundamental Methods of Mathematical Economics, McGraw-Hill.