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Mathematics for Economic and Statistical Analysis
Autum 2015
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Mathematics for Economic and Statistical Analysis, 7.5 hp

Reading List

Essential Mathematics for Economic Analysis; Sydsæter & Hammond, 4th ed., Pearson, 2012

Course content

The course covers elementary functions, derivatives, maximum and minimum problems, Taylor's formula and Taylor series, integrals, functions of several variables, optimisation problems with and without constraints, matrices and determinants.

Learning outcomes

It is expected that the student after taking the course will be able to:

- use basic methods in analysis in one or several variables to solve mathematical and applied problems in e.g geometry and economics
- solve elementary problems on matrices, vectors and determinants.

Teaching

Teaching consists of Lectures (15 sessions) and Tutorials (15 sessions). The lectures will mainly deal with the basic theory, while the Tutorials are entirely devoted to practical problem solving. The course will be taught in English.

Examination

The course ends on 30/09/2015 with a written exam. The final exam consists of seven exercises with a maximum score of 70 points. At least 35 points are necessary for the grade E, 42 for D, 49 for C, 56 for B and 63 for A.

Office hours

At convenience by previous appointment.

Page of the course

<http://kurser.math.su.se/course/view.php?id=332>

Content

The course treats elementary functions, derivatives, maximum and minimum problems, Taylor's formula and Taylor series, integrals, functions of several variables, optimisation problems with and without constraints, matrices and determinants. The contents of the course may be used in modelling in a number of fields as for example economy and statistics.

Stockholm, September 2015.

Salvador Rodríguez-López

Preliminary Tutorial plan

(Try to prepare as many problems as possible before each session)

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