ME2705 Microeconomics 7.5 credits

Mikroekonomi

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ME2705 valid from Autumn 2014

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

At least 180 credits of higher education, of which at least 30 credits in mathematics/economics, and documented proficiency in English B or the equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

On completion of the course, the student should:

- Be able to use and derive advanced microeconomics theory to analyse market competition, technological change and productivity growth, with mathematically formalised models.
- Be able to describe and apply formal mathematical models to prognosticate how supply and demand for specific goods will develop.
- Have knowledge of duality and optimisation for modern applied economical analysis.
- Have knowledge and tool to analyse welfare economics effects of technical and commercial development.
- Be able to use game theory for the analysis of strategic decisions.
- Be able to use advanced microeconomics theories and models
- Have knowledge how these can be applied for decision making in company, for example by engineers in managerial positions.

Course contents

The course develops a formal mathematical framework for the analysis of price formation, the efficiency of markets and the strategic interaction on markets. The mathematical production is based on optimization and multivariable analysis. The course starts with a brief overview of these fields . The following themes are treated:

- Consumer and producer theory
- Competition
- Theory of general equilibrium
- Welfare analysis
- Strategic behaviour and game theory
- Information assymetries

Disposition

The course is based on lectures and exercises. Furthermore, the course contains assisted problem solving classes connected to the mathematical contents of the course. The course also includes a number of written assignments where the students get an opportunity to apply their knowledge.

Course literature

Jehle, G.A., Reny, P.J. (2001) Advanced Microeconomic Theory (3rd edition) (eller senaste upplaga) Addison-Wewsley Longman Inc.

Ytterligare artiklar och material förmedlas via kursadministrationen.

Examination

- TEN1 - Exam, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercise, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.