



Faculty of Arts and Social Sciences
Economics

Syllabus

Course Approval

The syllabus was approved by the Faculty Board of Arts and Social Sciences on 13 March 2014, and is valid from the Autumn semester of 2014 at Karlstad University.

Course Code: NEGB25

Microeconomics and quantitative methods, 15.0 ECTS Credits
(Mikroekonomi och kvantitativa metoder, 15.0 Swedish credit points)

Degree Level: Bachelor

Progressive Specialisation: G1F (First cycle, has less than 60 credits in first-cycle course/s as entry requirements)

Language of Instruction

Swedish or English

Prerequisites

Economics 30 ECTS cr, Statistics 15 ECTS cr

Major Field of Study

NAA (Economics)

Learning Outcomes

Upon completion of the course, students should be able to:

- apply the basic neoclassical method to microeconomic problems,
- analyse and give an account of decision making situations for consumers and companies,
- solve optimisation problems mathematically with and without subsidiary conditions for functions of one and two variables,
- apply basic concepts to analyse optimisation problems over time and in uncertainty,
- give an account of the conditions under which pure market solutions are not socioeconomically optimal (market failure, e.g. external effects) and
- use and critically evaluate different statistical methods.

Content and Form of Instruction

Module 1 Quantitative methods in economics, 7.5 ECTS cr

The module includes both a mathematical and a statistical component. The mathematical component starts with a review of basic arithmetic and solving equations and continues with one-variable analysis, differential calculus and optimisation. Multivariate analysis and optimisation and constrained optimisation. The statistical component discusses probability theory and inference. The content of both components centres on the parts relevant to economics with an emphasis on applied mathematics and statistics as well as the practical skills in solving problems. The module is concluded with an individual hand-in assignment applying statistical methods to an economic problem.

Module 2 Microeconomics, 7.5 ECTS cr

Students develop deeper and broader insights into microtheory compared to previous courses. They study consumption, production and general equilibrium theory with the help of analytical methods. Areas studied are, for example, individual demand function, disclosed preferences, income and substitution effects, intertemporal choice, choice under uncertainty, game theory, partial and general market equilibrium. Welfare theory and a thorough study of why the market can fail due to external effects are also included as are collective utilities and information deficit (asymmetric information).

Reading List

See separate document.

Examination

Assessment is based on:

Module 1: written exam and an individual hand-in assignment.

Module 2: written exam.

Grades

market equilibrium.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.

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