

Economic Analysis: Economic Theory

Programme course

4 credits

Ekonomisk analys: Ekonomisk teori

TPPE98

Valid from: 2017 Spring semester

Determined by

Board of Studies for Industrial
Engineering and Logistics

Date determined

2017-01-25

Main field of study

Industrial Engineering and Management

Course level

First cycle

Advancement level

G2X

Course offered for

- Industrial Engineering and Management - International, M Sc in Engineering
- Mathematics
- Industrial Engineering and Management, M Sc in Engineering

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites

Industrial Economics; Mathematical statistics; Algebra III; Calculus, one variable ; Calculus, several variables; Introduction to Optimization

Intended learning outcomes

Having completed course the student should:

- have knowledge of and be able to give a quantitative description of the basic economic relationships within the firm as well as between the firm and its environment.
- be able to use the most common models for making economic decisions based on given information and different economic aims.
- Be able to formulate, structure and analyse relevant parts of the economic reality, how different players on the market act towards each other and how prices are set under different assumptions of competition.

Course content

Building mathematical models: Formulating and solving mathematical models applied on economic problems, optimization with constraints.

Consumer demand: Estimating consumer demand.

Theory of Producers: Production functions, iso-cost curves, expansion curves, Long-run and short-run problems, pricediscrimination, homogenous production functions.

Market theory: Perfect competition, Monopoly, Monopolistic competition, dopoly, oligopoly, Cournot, Stackelberg and joint optimum solutions.

The course introduces differences between business and economic approach and assumes an economically sustainable perspective.

Teaching and working methods

The lectures are mainly concerned with the theoretical foundations of the areas covered. The lessons are devoted to problem solving and discussion. The seminars are devoted to presenting given problems.

The course is offered twice during 2017: Vt1 and Ht2.

Examination

UPG1	Hand-in assignments	1 credits	U, G
TEN2	Written examination	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Fredrik Persson

Examiner

Helene Lidestam

Education components

Preliminary scheduled hours: 32 h

Recommended self-study hours: 75 h

Course literature

Samuelson, W. F. and Marks, S. G. (2010), *Managerial Economics*, 6th edition, John Wiley And Sons, ISBN-13 978-0-470-41437-8

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.