



School of Economics and Management

NEKP23, Economics: Microeconomics - Theory for Individual Choice and Game Theory, 7.5 credits

Nationalekonomi: Mikroekonomi - teori för individuella val samt spelteori, 7,5 högskolepoäng
Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Board of the Department of Economics on 2011-06-07 to be valid from 2011-06-07, autumn semester 2011.

General Information

This is a single subject master course in economics. The course is either obligatory or optional within a number of master programmes at Lund University.

Language of instruction: English

Teaching is in English. (Teaching may be in Swedish if all registered students have a good knowledge of Swedish).

Main field of studies

Economics

Depth of study relative to the degree requirements

A1F, Second cycle, has second-cycle course/s as entry requirements

Learning outcomes

1. Knowledge and understanding

Students shall:

- deepen their knowledge of the microeconomic theory of choice by individuals and firms in a perfectly competitive context, and their knowledge of non-cooperative game theory with applications to economic models and economic problems,
- understand and be able to describe the duality between technologies on the one hand, and cost and profit functions on the other,
- understand and be able to describe models of individual choice under certainty and uncertainty,

- understand and be able to describe the dual approach to consumer theory,
- understand and be able to describe the concepts of static and dynamic game, perfect, complete and incomplete information, strategic and extensive form, and strategic substitutes and complements,
- understand and be able to describe the solution concepts dominance (strict and weak), iterated strict dominance, rationalisability, Nash equilibrium, subgame perfect equilibrium, and perfect Bayesian equilibrium, as well as the interrelations among these concepts,
- be able to formalise competitive situations and other social and economic interaction problems as games.

2. Skills and abilities

Students shall have the ability to independently:

- apply the theory to non-parametric efficiency analyses of firms and industries,
- apply the theory of individual choice in specific examples, such as the degree of insurance and the composition of asset portfolios,
- analyse competitive situations and other social and economic interaction problems as games with appropriate solution concepts,
- describe and discuss their knowledge.

3. Applying knowledge and making judgements

Students shall be able to acquire further knowledge in the area with little guidance or support.

Course content

In the first part of the course the technology encountered by a firm is modelled, and the circumstances under which all relevant technological information is captured by purely economic objects are demonstrated. It is also shown how efficiency can be analysed by means of DEA analysis. Next, individual choice is considered and a number of representation theorems are derived for choice under both certainty and uncertainty. A number of applications of preference theory are considered, such as the first welfare theorem and its application to asset markets, as well as other kinds of choice under uncertainty. This part of the course is concluded with a treatment of the dual approach to consumer theory, providing a full characterization of the implication of individual utility maximizing behaviour in a market context. In the second part of the course non-cooperative game theory and its economic application are considered. The main focus is on static and dynamic games with complete information, but also simpler games with incomplete information, in particular signalling games, are considered.

No specific gender perspective is adopted in this course.

Course design

1. Teaching: Tuition consists of lectures and exercises.

Assessment

1. Examination: Written exams take place at the end of the course. There will be further opportunities for examination close to this date. In addition there are a number of home exercises that will be graded, and the marks carried forward to examinations taken the same term.
2. Limitations on the number of examination opportunities: –

The University views plagiarism very seriously, and will take disciplinary action against students for any kind of attempted malpractice in connection with examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practices in examinations or assessments, includes suspension from the University for a specified period.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, E, D, C, B, A.

1. Grading: The official grading scale is A, B, C, D, E and Fail.
2. Weighting grades from different parts of the course: –
3. Grading scales for different parts of the course: –

Entry requirements

Students who have been admitted to the Master Programme in Economics or the Master Programme in Economic Research Methods and who have taken the courses NEKN21 "Advanced Microeconomic Analysis" and NEKP31 "Mathematical Methods – Static Optimisation" are eligible to take this course. For other students at least 90 ECTS-credits in economics are required. These must include 30 ECTS-credits at the advanced level, including the courses NEKN21 "Advanced Microeconomics Analysis", NEKP31 "Mathematical Methods – Static Optimisation" and NEKN01 "Master Essay I" or their equivalents.

Further information

1. Transitional regulations: This course replaces NEKM31 "Microeconomics – Theory for Individual Choice and Game Theory".
2. Limitations in the period of validity: –
3. Limitations: This course may not be included in the same degree as NEK701 "Microeconomics – Theory for Individual Choice and Game Theory" or NEKM31 "Microeconomics – Theory for Individual Choice and Game Theory".
4. Similar courses: –

5. Limitations in renewed examination: –

Subcourses in NEKP23, Economics: Microeconomics - Theory for Individual Choice and Game Theory

Applies from H11

1101 Microeconomics- Theory for Individual Choice and Game Theory, 7,5 hp
Grading scale: Fail, E, D, C, B, A